State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

09/07/04

RE: Proposed Title V Chapter 3745-77 Permit
13-18-17-0314
ALCOA-Cleveland Works TVP006

Attn: Genevieve Damico AR-18J
United States Environmental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for ALCOA-Cleveland Works, has been created in Ohio EPA's State Air Resources System (STARS) on 09/07/04, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: Cleveland Division of Air Pollution Control
File, DAPC PMU

State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 09/07/04	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 13-18-17-0314 to:
ALCOA-Cleveland Works
1600 Harvard Avenue
Cleveland, OH 44105-3092

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B008 (Gas Boiler #8)
One of 2 - 98.8 MMBtu/hr gas fired boilers replacing the coal fired boilers

B009 (Gas Boiler #9)
One of 2 - 98.8 MMBtu/hr gas fired boilers replacing the coal fired boilers

K002 (Coating - B53)
Carpenter Shop Spray Paint Booth - Bldg 53

P003 (Furnaces 2502 Heat Treat and Age B120)
2502 Heat Treat and Age Oven - Bldg 120

P004 (Furnaces 2503 Heat Treat and Age B120)
2503 Heat Treat and Age Oven - Bldg 120

P007 (35001 Hammer)
35001 Steam Hammer - Bldg 114

P008 (35002 Hammer)
35002 Steam Hammer - Bldg 114

P009 (25001 Hammer)
25001 Steam Hammer - Bldg 114

P010 (8001 Hammer)
8001 Steam Hammer - Bldg 114

P011 (Press 15000)
15000 Hydraulic Press Complex - Bldg 112A

P012 (Press 8001)
8001 Hydraulic Press Complex - Bldg 112A

P013 (Press 8002/2500)
8002 & 2500 Ton Hydraulic Press Complex - Bldg 112A

P014 (Press 3004)
3004 Hydraulic Press Complex - Bldg 112A

P017 (Mech 1300 T Ajax)
1300 Ton Ajax Press - Bldg 101

P018 (Mech 1600 T Erie)
1600 Ton Erie Press - Bldg 101

P019 (Mech 4000 T Ajax)
4000 Ton Ajax Press - Bldg 101

P024 (Press 3003)
3003 Hydraulic Press Complex - Bldg 101

P029 (Press 35000)
35000 Hydraulic Press Complex - Bldg 206

P030 (Press 50000)
50000 Hydraulic Press Complex - Bldg 206

P032 (Torch Pit #1)
Acetylene Arc System - Torch Pit No. 1 (East) - Bldg 206

P046 (Furn HT - #1 Swindell)
No. 1 Swindell Heat Treat Furnace - Bldg 206

P047 (Furn HT - #2 Swindell)
No. 2 Swindell Heat Treat Furnace - Bldg 206

P048 (Furn HT - #3 Swindell)
No. 3 Swindell Heat Treat Furnace - Bldg 206

P049 (Furn HT - #4 Swindell)
No. 4 Swindell Heat Treat Furnace - Bldg 206

P054 (Furn HT - #5 Dispatch (30000))
No. 5 H.T. Despatch Furnace

P055 (Furn #15 Soaker)
120,000 lb Ignot Soaking Furnace (No. 15) - Bldg 206

P083 (Furn T-1 B101)
Titanium Reheat Furnaces T-1 - Bldg 101

P086 (Blast-T Whl B206)
Wheelabrator - Titanium - Bldg 206

P087 (Furn T-7 B206)
Titanium Reheat Furnace T-7

P091 (Grind Booth T-1)
Titanium Grinding Booth #1 - Bldg 206

P092 (Grind Booth T-2)
Titanium Grinding Booth #2 - Bldg 206

P093 (Grind Booth T-3)
Titanium Grinding Booth #3 - Bldg 206

P094 (Grind Booth T-4)
Titanium Grinding Booth #4 - Bldg 206

P096 (Grind Booth T-6)
Titanium Grinding Booth #6 - Bldg 206

P097 (Grind Booth T-7)
Titanium Grinding Booth #7 - Bldg 206

P100 (Furn T-8 Anneal B206)
Titanium Annealing Furnace T-8 - Bldg 206

P102 (Furn #12 Soaker)
No. 12 Soaker Furnace - Bldg 150

P104 (Press 8003/2583)
8003 & 2583 Hydraulic Press Complex - Bldg 112A

P105 (Furn RH 17001 B111)
17001 Furnace - Bldg

P107 (Furn RH 6005 B210)
6005 Reheat Furnace - Bldg 210

P108 (Blast #1 Whl B114)
No. 1 Wheelabrator Cabinet - Bldg 114A

P119 (Furn #2 Die B202)
No. 2 Die Preheat Furnace - Bldg 202

P121 (Furnance South H.T. and Age B150 (8001))
South Heat Treat & Age Ovens- Bldg 150 (8001)

P122 (Furnance North H.T. and Age B150 (8002))
North Heat Treat & Age Ovens - Bldg 150 (8002)

P125 (Furn T-9 B206)
Titanium Reheat Furnace T-9 - Bldg 206

P129 (2503 Mechanical Press)
2503 Mechanical Press - water based lubes

P146 (Press 3005)
3005 Hydraulic Press Complex - Bldg 101

P152 (Furn Heat Treat Line #3 B150)
Heat Treat Line #3 - Bldg 150

P154 (Furn T-12 Titanium Preheat B210)
T-12 Titanium Preheat Furnace - Bldg 210

P155 (X-Plant 4001 Hydraulic Press)
X-Plant 4001 Hydraulic Press

P156 (X-Plant 4002 Hydraulic Press)
X-Plant 4002 Hydraulic Press

P157 (Y-Plant 5001 Hydraulic Press)
Y-Plant 5001 Hydraulic Press

P158 (Y-Plant 5002 Hydraulic Press)
Y-Plant 5002 Hydraulic Press

P159 (Furn 4601 B114)
4601 Preheat Furnace - Bldg 114

P162 (Inconel preheat furnace)
27 mmBtu/hr direct gas-fired Inconel preheat furnace - Bldg. 206

P163 (Small Wheelabrator Shotblaster)
Small Wheelabrator Shotblaster - Bldg. 206

P164 (5082 Blocking Press)
5082 Blocking Press - Bldg. 112

P165 (5083 Blocking Press)
5083 Blocking Press - Bldg. 112

P402 (Furn #13 Soaker)
No. 13 Soaker Furnace - Bldg 150 (part of P102)

P429 (2504 Mechanical Press)
2504 Mechanical Press - water based lubes

P432 (Torch Pit #2)
Acetylene Arc System - Torch Pit No. 2 (West) - Bldg 206 (part of P032)

Z007 (Furn 1004 B101)
1004 Furnace - Bldg 101

Z008 (Furn 2007 B101)
2007 Furnace - Bldg 101

Z009 (Furn 2502 B101)
2502 Furnace - Bldg 101

Z012 (Furn 4502 B101)
4502 Furnace - Bldg 101

Z013 (Furn 4504 B101)
4504 Furnace - Bldg 101

Z014 (Furn 4505 B101)
4505 Furnace - Bldg 101

Z015 (Furn 4506 B111)
4506 Furnace - Bldg 101

Z020 (Furn 6002 B101)
6002 Furnace - Bldg 101

Z022 (Furn 12001 B111)
12001 Furnace - Bldg 111

Z023 (Furn 12002 B111)
12002 Furnace - Bldg 111

Z024 (Furn 12003 B111)
12003 Furnace - Bldg 111

Z025 (Furn 6003 B111)
6003 Furnace - Bldg 111

Z026 (Furn 6004 B111)
6004 Furnace - Bldg 111

Z027 (Furn G-1 B111)
12,000 Lb Reheat Furnace G-1 - Bldg 111

Z028 (Furn G-2 B111)
12,000 Lb Reheat Furnace G-2 - Bldg 111

Z031 (Furn 2002 B114)
2002 Preheat Furnace - Bldg 114

Z033 (Furn 2503 B150)
2503 Preheat Furnace - Bldg 150

Z034 (Furn 4509 B114)
4509 Reheat Furnace - Bldg 114

Z035 (Furn 4513 B114)
4513 Reheat Furnace - Bldg 114

Z036 (Furn 4518 B114)
4518 Reheat Furnace - Bldg 114

Z037 (Furn 4519 B114)
4519 Reheat Furnace - Bldg 114

Z041 (Furn R&S #1 B206)
R&S Reheat Furnace No. 1 - Bldg 206

Z043 (Furn R&S #3 B206)
R&S Reheat Furnace No. 3 - Bldg 206

Z044 (Furn #4 Salem)
No. 4 Salem Furnace - Bldg 206

Z045 (Furn #5 Salem)
No. 5 Salem Furnace - Bldg 206

Z051 (Furn T-10 B206)
T-10 Furnace - Bldg 206

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Cleveland Division of Air Pollution Control
1925 St. Clair
Cleveland, OH 44114
(216) 664-2324

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be

submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Authority for term: OAC rule 3745-77-07(A)(7))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.
(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports

shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
ii. Compliance certifications shall include the following:
   (a) An identification of each term or condition of this permit that is the basis of the certification.
   (b) The permittee's current compliance status.
   (c) Whether compliance was continuous or intermittent.
   (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
   (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA. Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61 and OAC Chapter 3745-20.

2. A final permit to install PTI #13-3174 for two gas/oil 98.8 mm Btu/hr heat input steam generating boilers was issued to Aluminum Company of America's Cleveland Works by Ohio Environmental Protection Agency on June 20, 1997. This permit to install covers emissions units B008 and B009. See Part III for individual emissions unit special terms and conditions.

The sources described in this Permit to Install are subject to the applicable provisions of the Emission Offset Policy as promulgated by the United States Environmental Protection Agency, 40 CFR 51, and as delegated to the Ohio Environmental Protection Agency and are federally enforceable. Pursuant to the above, the source owner/operator is hereby advised of the following:

In order to "net out" of the Federal Prevention of Significant Deterioration and non-attainment requirements, the applicant shall permanently shut down the following emissions units located at the Aluminum Company of America's Cleveland Works:
B001, B002, B003, B004, and B005 by March 31, 1998, or upon startup (i.e., beginning of normal operation) of the replacement boilers (B008 and B009), and the new emissions units, P157 and P158. The netting calculations are presented in Ohio EPA Permit to Install PTI #13-3149 for emissions units P157 and P158. The shake down period for the replacement emissions units shall not exceed one hundred eighty days. The following record keeping shall be maintained and quarterly summary reported to the Cleveland Division of Air Quality (Cleveland DAQ) showing the following:

2.a In all cases, for the operation of the coal fired boilers, the replacement boilers, and the new emissions units (P157 and P158), the actual PM10 emission increases shall not exceed a 15 tons per year increase based upon a rolling, 12-month summation of the monthly emissions. The permittee shall calculate and record the following information on a calendar year basis:

i. the actual annual PE of B008 and B009, tons per year;
ii. the actual annual PE of P157, tons per year;
iii. the actual annual PE of P158, tons per year; and
iv. the total actual PE of B008, B009, P157, and p158, tons per year.

See Sections A.V.1 in B008 in Part III, A.V.1 in B009 in Part III, A.III.4 in P157 in Part III, and A.III.4 in P158 in Part III for respective methods for calculating actual annual PE, tons per year.

2.b Reporting Requirements

By January 31 of each year, the permittee shall submit an annual deviation report to the Cleveland Division of Air Quality (Cleveland DAQ) that identifies any exceedance of the annual PE limitation in A.2.a in this Part II.

If there was no exceedance of the annual PE limitation, the permittee shall submit a negative declaration to the Cleveland DAQ by January 31 of each year.

3. Beginning no later than the first substantive compliance date for the Industrial, Commercial and Institutional Boilers and Process Heaters MACT of the emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility (non-insignificant and insignificant), shall not exceed 9.9 TPY for any individual HAP, as a rolling, 12-month summation, and 24.9 TPY for total combined HAPs, as a rolling, 12-month summation.

The permittee has voluntarily accepted these restrictions on HAP emissions to avoid being classified as a major source of HAP and subject to federal Maximum Achievable Control Technology (MACT) standards. The permittee has existing records to demonstrate, based upon a rolling, 12-month summation, that HAP emissions have not exceeded HAP major source thresholds.

A. State and Federally Enforceable Section (continued)

HAPs are emitted from the following non-insignificant and insignificant emissions units at this facility:

a. P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, Z012, Z013, Z014, Z015, Z020, Z022, Z023, Z024, Z025, Z026, Z027, Z028, Z031, Z033, Z034, Z035, Z036, and Z037, Z041, Z043, Z044 and Z045 (which emit hydrogen fluoride (HF) due to hydrogen scavenger usage); and

b. B008, B009, P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, Z012, Z013, Z014, Z015, Z020, Z022, Z023, Z024, Z025, Z026, Z027, Z028, Z031, Z033, Z034, Z035, Z036, and Z037, Z041, Z043, Z044, Z045 and Z301 (which emit various HAPs due to natural gas and fuel oil combustion);

c. P033 (which emits HF from titanium pickling; and

d. P123, Z055, Z056, Z057, Z058, Z099, Z105, Z304, Z306, Z119 and Z120 (metal fabrication operations which emit HAP emissions of chromium, lead, manganese, and nickel due to sawing, forming, etc.).

Beginning no later than 12 months prior to the first substantive compliance date for the Industrial, Commercial and Institutional Boilers and Process Heaters MACT, the permittee shall use the following calculation methodologies to estimate HAP emissions for this facility, which shall be performed by the permittee in the month following the end of each calendar quarter for each month of the previous calendar quarter:

a. Hydrogen Scavenger Usage

i. Monthly HF emissions from emissions units P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, Z012, Z013, Z014, Z015, Z020, Z022, Z023, Z024, Z025, Z026, Z027, Z028, Z031, Z033, Z034, Z035, Z036, and Z037, Z041, Z043, Z044 and Z045 shall be calculated as follows:

lbs hydrogen scavenger used/month x lb hydrogen fluoride emitted/lb hydrogen scavenger used* (from the latest emissions test for the hydrogen scavenger) x ton/2000 lb = tons of HF/month

*The HAP emission factor has been determined stoichiometrically in calculations supplied by the permittee. Until the results of the source testing required by this permit are available, the current emission factor of 0.1908 lb HF/lb hydrogen scavenger, as supplied by the permittee shall be used.

ii. Sum the monthly emissions of HF in tons with the previous 11 month's emissions to get the rolling, 12-month summation of HF emissions.

A. State and Federally Enforceable Section (continued)

b. Natural Gas and Fuel Oil Combustion

The HAP emissions from the combustion sources at the facility shall be calculated using records maintained by the permittee of the monthly natural gas and bulk fuel purchases and the emission factors specified in the most recent edition of USEPA publication AP-42, Chapters 1.3 and 1.4 for the combustion of fuel oil and natural gas.

c. Emissions Unit P033 - Titanium Pickling (insignificant emissions unit)

The permittee performed stack testing on this emissions unit in 1991 and determined an hourly hydrogen fluoride emission rate (0.532 lb HF/hour). The stack test results have been used for the SARA 313 reporting requirements. The acid baths for this emissions unit operate continuously, 8760 hours/year, even though metal is not continuously processed through these units. Therefore, the potential to emit hydrogen fluoride is calculated as follows:

0.532 lb HF/hr x 8760 hrs/year x ton/2000 lbs = 2.33 tons/year HF

Since the above represents the potential to emit for this emissions unit, there are no record keeping requirements necessary for this emissions unit; however, this potential to emit shall be included in the rolling, 12-month summation of single HAP (HF) emissions.

d. Metal Fabrication Operations (P123, Z055, Z056, Z057, Z058, Z099, Z105, Z304, Z306, Z119 and Z120)

Chromium, lead, manganese, and nickel emissions are generated from sawing, forming and other metal fabrication operations. From past SARA 313 reports, it has been determined that the actual amount of each of these HAPs is less than 0.1 ton/year. Consequently, no record keeping is necessary for these operations; however, the 0.05 TPY emissions for each of these HAPs shall be included in the total rolling, 12-month summation of individual HAP and total combined HAPs emissions.

The permittee shall maintain monthly records, compiled no less often than once per calendar quarter during the month following the end of the calendar quarter, of the following:

a. for the emissions units identified in 2.a and 2.c above that use hydrogen scavenger:

i. the amount of hydrogen scavenger employed (in pounds);

ii. the amount of the HF emissions (in tons), calculated as specified above;

iii. the total amount of HF emissions from P033; and

iv. the total facility wide HF emissions.

b. for the emissions units that combust natural gas and/or fuel oil usage identified in 2.b above:

i. the amount of natural gas (in mmcf) and fuel oil (in gallons) consumed for the entire facility;

ii. the amount of each individual HAP (in tons) as calculated above.

A. State and Federally Enforceable Section (continued)

The permittee shall maintain monthly records, compiled no less often than once per calendar quarter during the month following the end of the quarter, of the following information for all of the HAP emitting emissions units (non-insignificant and insignificant) at the facility:

a. the total, facility-wide emissions (and associated calculations) for each individual HAP, in tons per year, calculated by summing the individual HAP emission rates from all of the HAP emitting emissions units at the facility;

b. the total, facility-wide emissions (and associated calculations) for total combined HAPs, in tons per year, calculated by summing all of the HAP emission rates from all of the HAP emitting emissions units at the facility

c. the rolling, 12-month summation of the monthly individual HAP emissions for each HAP from all of the HAP emitting emissions units at the facility, in tons; and

d. the rolling, 12-month summation of the monthly total combined HAPs emissions from all of the HAP emitting emissions units at the facility, in tons.

The permittee shall submit quarterly deviation (excursion) reports that identify all of the following:

a. each month during which the rolling, 12-month emission rate of an individual HAP at the facility exceeded 9.9 tons; and

b. each month during which the rolling, 12-month combined HAPs emission rate for the facility exceeded 24.9 tons.

4. The following insignificant emissions units are located at this facility:

P006 - Automatic Etch Line in Building 114b
P016 - Mechanical 2503 Ton Erie Press in Building 101 - Now under OEPA number P129
P021 - 7 Inch Upsetting Press in Building 101
P022 - 3001 hydraulic press complex, Building 101
P023 - 3002 hydraulic press complex, Building 101
P033 - Titanium Etch Tanks in Building 206
P034 - 0.9 mmBtu/hr Heat Input Furnace 12001 (Aging Oven #1) in Building 206
P035 - 0.9 mmBtu/hr Heat Input Furnace 12002 (Aging Oven #2) in Building 206
P036 - 0.9 mmBtu/hr Heat Input Furnace 12003 (Aging Oven #3) in Building 206
P037 - 0.9 mmBtu/hr Heat Input Furnace 12004 (Aging Oven #4) in Building 206
P038 - 0.9 mmBtu/hr Heat Input Furnace 12005 (Aging Oven #5) in Building 206
P039 - 0.9 mmBtu/hr Heat Input Furnace 12006 (Aging Oven #6) in Building 206
P041 - Etch System West Nitric Acid Tank in Building 206
P042 - Etch System West Caustic Tank in Building 206
P043 - Etch System East Two Water Rinse Tanks in Building 206
P044 - Etch System East Nitric Tank in Building 206
P045 - Etch System East Caustic Tank in Building 206
P050 - 2.0 mmBtu/hr Heat Input Furnace 20001 Aging Oven #7 (25000) in Building 206

P051 - 2.0 mmBtu/hr Heat Input Furnace 20001 Aging Oven #8 (25000) in Building 206
P052 - 3.5 mmBtu/hr Heat Input Aging Oven #9 (30000) in Building 206
P053 - 3.5 mmBtu/hr Heat Input Furnace 30001 Aging Oven #10 (30000) in Building 206
P056 - Vapo-Blast Company Die Cleaning Booth in Building 202
P090 - Etch Magnesium Pickle Tanks in Building 116
P101 - 5.0 mmBtu/hr Heat Input 12 foot #1 Steel Die Heating Furnace #3 in Building # 112a
P106 - 3000 Ton Preforming Hydraulic Forging Press 3006
P109 - Etch Line for Aluminum Forgings in Building 101
P110 - Etch Line for Aluminum Forgings in Building 116
P111 - Etch Line for Aluminum Forgings in Building 120
P112 - Die Cleaning And Grinding / Polishing Benches in Building 106
P120 - No. 4 Die Preheat Furnace #4 in Building 202
P123 - N-tech Systems Inc. Saw with Mist Collector for Sizing Aluminum Ingots in Building 112
P124 - 6.4 mmBtu/hr Heat Input Gas-fired Vertical Die Preheat Furnace #6 in Building 206, A-Plant

A. State and Federally Enforceable Section (continued)

P130 - 20-inch Belt, 258-84 14-inch, 258087 24-inch three Grinding Wheels and Die Polishing Benches in Building 116
P131 - 2000lb and 4000lb Steam Hammers in Building 114, No Lube Used
P132 - Aluminum Etch Line in Building 112
P147 - Rapid Fire Reheat Furnace 3005
P153 - No. Wheelabrator Grit Blast Cabinet in Building 114A - not installed as of April 7, 1998.
T015 12,000 gallon above ground fuel oil storage tank #1 (permit to install #13-2824)
T016 12,000 gallon above ground fuel oil storage tank #2 (permit to install #13-2824)
Z048 - 9.1 mmBtu/hr Heat Input Die Furnace 101 in Building 101
Z052 - 0.4 mmBtu/hr Heat Input Furnace Blacksmith, A-Plant
Z053 - 9.1 mmBtu/hr Heat Input Die Heating Furnace S-1 in Building 111
Z054 - 9.1 mmBtu/hr Heat Input Die Heating Furnace S-2 in Building 111
Z055 - 55 Inch Newton Saw in Building 202
Z056 - 108 Inch M&M Saw in Building 202
Z057 - Russell Saw #1
Z058 - Russell Saw #2
Z059 - Titanium Saw in Building 118
Z060 - M&M Circular Saw in Building 118

Z061 - Oil Spray in Building 206
Z062 - Die Grinding Bench Booth #1 in Building 202
Z063 - Die Grinding Bench Booth #2 in Building 202
Z064 - Die Grinding Bench Booth #3 in Building 202
Z065 - Die Grinding Bench Booth #4 in Building 202
Z066 - Die Grinding Bench Booth #5 in Building 202
Z067 - Die Grinding Bench Booth #6 in Building 202
Z068 - Die Grinding Bench Booth #7 in Building 202
Z070 - Grinding / Polishing Bench in Building 120
Z071 - Grinding / Polishing Bench in Building 116
Z072 - Magnesium Grinding Bench in Building 116
Z075 - Tool Grinding Area in Building 202
Z076 - Die Welding Operations in Building 202
Z078 - Miscellaneous -Tycote-G Spray Area in Building 206
Z079 - Road Dust - Vehicle Fugitive Dust - Plantwide
Z083 - Scrap and Chip Handling in Building 150
Z085 - Zyglo Inspection Area in Building 206
Z086 - Zyglo Inspection Area in Building 116
Z087 - Two 500 Ton Franc Presses in Building 206
Z088 - Lake Erie Straight Presses #44, 45, 46, & 55 in Building 206
Z089 - Clearing 2000 Ton Press in Building 206
Z090 - 50 Ton Ring Roller in Building 111

Z091 - 2503 Heat Treat Quench Line in Building 120
Z092 - 2502 Heat Treat Quench Line in Building 120
Z096 - Swing Table Wheelabrator Blast in Building 206
Z097 - Carpenter Shop Woodworking Operations
Z098 - Aerosol Can Puncturer
Z099 - Y-Plant Metal Saw
Z100 - Y-Plant 7.5 mmBtu/hr Heat Input Preheat Furnace
Z101 - Y-Plant 150 Ton Press
Z102 - Y-Plant 8.0 mmBtu/hr Heat Input Heat Treat Furnace
Z103 - Y-Plant Spinners
Z104 - Y-Plant 4.5 mmBtu/hr Heat Input Age Oven
Z105 - X-Plant Russell Saw
Z106 - X-Plant Radius Machine
Z107 - X-Plant 6.0 mmBtu/hr Heat Input Preheat Furnace
Z108 - X-Plant 150 Ton Press
Z109 - X-Plant 8.0 mmBtu/hr Heat Input Heat Treat Furnace
Z110 - X-Plant Spinners

A. State and Federally Enforceable Section (continued)

Z111 - X-Plant 4.5 mmBtu/hr Heat Input Age Oven
Z113 - X-Plant Machining
Z115 - Miscellaneous Material Handling consists of baghouse coating silo, boiler house salt, gravel load and unload. X, Y, Building 108 gas boilers.
Z116 - Preheat Furnace 6006 in Building 114
Z117 - #7 Die Heater in Building 206
Z300 - Small Abrasive Blasting Units Operations Facility Wide
Z301 - Small Burners Facility Wide
Z302 - Small Degreasers Facility Wide
Z303 - Miscellaneous Fuel Dispensing Facility Wide
Z304 - Small Grinding Operations Facility Wide
Z305 - Machining Machines Facility Wide
Z306 - Small Miscellaneous Sawing Operations Facility Wide
Z307 - Small Tanks Facility Wide
Z308 - Maintenance Welding Facility Wide
Z309 - Open burning by permission
Z310 - Asbestos renovation and demolition activities

Z312 - Landfill activities
Z501 - Furnaces Grouped for emissions statement

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

5. The permittee may be subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart DDDDD, in accordance with 40 CFR Parts 63.7480, 63.7485, 63.7490, 63.7495, 63.7500, 63.7505, 63.7510, 63.7515, 63.7520, 63.7525, 63.7530, 63.7535, 63.7540, 63.7545, 63.7550, 63.7555, 63.7560, 63.7565, 63.7570, and 63.7575 (including the Table(s) and Appendix(ices) referenced in Subpart DDDDD), which are included in the text of Attachment 1 hereto, and are hereby incorporated into this permit as if fully rewritten.

Ordinarily, these requirements would be incorporated into Part II of this Title V permit; however, incorporating Subpart DDDDD into Part II of this Title V permit was not practical due to technical incompatibilities and the limitations of the STARS program. In addition, numerous difficulties were encountered in attempting to copy and paste the Subpart's tables and/or equations into STARS format.

The following emissions units in this permit are subject to the aforementioned requirements: emissions units B008 and B009.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

P040 - A.F. (Aluminum Forging) Etch System West Two Water Rinse Tanks in Building 206
P043 - Etch System East Two Water Rinse Tanks in Building 206
Z001 - 1.8 mmBtu/hr Heat Input Age Oven Furnace 16001 in Building 114
Z002 - 1.8 mmBtu/hr Heat Input Age Oven Furnace 16002 in Building 114
Z003 - 0.6 mmBtu/hr Heat Input Age Oven Furnace 9003 in Building 114
Z004 - 0.6 mmBtu/hr Heat Input Age Oven Furnace 9004 in Building 114
Z005 - 0.6 mmBtu/hr Heat Input Age Oven Furnace 9005 in Building 114

B. State Only Enforceable Section (continued)

T003 - Tank - 12000-Gallon Cylindrical Outdoor Run-off Water Storage Tank-DR #5
T004 - Tank - 15000-Gallon Cylindrical Outdoor Run-off Water Storage Tank-DR #5
T011 - Tank - 1000-Gallon above Ground Diesel Fuel Storage Tank - #576145
T012 - Tank - 500-Gallon above Ground Gasoline Storage Tank - # 576144
T013 - Tank - 1500-Gallon Cylindrical Outdoor Diesel Fuel Storage Tank-SW in Building #206 (Diesel Fuel AGST)

2. The following emissions units are removed from service and are permanently shut down:

B001 - No. 1 coal fired boiler permanently shut down (used for emission offset)
B002 - No. 2 coal fired boiler permanently shut down (used for emission offset)
B003 - No. 3 coal fired boiler permanently shut down (used for emission offset)
B004 - No. 4 coal fired boiler permanently shut down (used for emission offset)
B005 - No. 5 coal fired boiler permanently shut down (used for emission offset)
K003 - Paint Booths in Building 157 - permanently shut down
P001 - 18,000 Heat Treat Furnace in Building 120 - permanently shut down
P002 - 4.6 mmBtu/hr heat treat furnace (Aging Oven in Building 120) - removed from service, permanently shut down
P005 - 18,000 Age Oven Furnace in Building 120 - permanently shut down
P015 - Mechanical 2500 Ton Ajax - permanently shut down
P020 - Press 10 inch Upset - permanently shut down
P025 - Furnace 758 KW - permanently shut down
P026 - Furnace 752 KW - permanently shut down
P027 - 6000 lbs/hr Furnace Lindberg in Building 107 - permanently shut down
P028 - Furnace 753 KW - permanently shut down
P031 - Furnace Titanium 4 Heat Treat - permanently shut down
P057 - P082 Old equipment removed from service
P084 - Molten Aluminum Furnace - permanently shut down
P085 - No. 14 Dipwell Furnace - permanently shut down
P088 - No. 11 Dipwell Furnace - permanently shut down
P089 - No. 6 Dipwell Furnace - permanently shut down
P095 - Grind Booth T- 5 - permanently shut down
P098 - No equipment - permanently shut down
P099 - No equipment - permanently shut down

P103 - No. 5 Dipwell Furnace - permanently shut down
P113 - West Grinder - permanently shut down
P114 - East Grinder - permanently shut down
P115 - No. 2 Die Preheat Furnace - Building 206 - permanently shut down and removed
P116 - No. 3 Die Preheat Furnace - Building 206 - permanently shut down and removed
P117 - No. 4 Die Preheat Furnace - Building 206 - idled, pending removal, permanently shut down
P118 - No. 5 Die Preheat Furnace - Building 206 - idled, pending removal, permanently shut down
P126 - Pangborn Blast Room A Plant - permanently shut down
P127 - No equipment - permanently shut down
P128 - No equipment - permanently shut down
P133 - P142 - No equipment - permanently shut down
P143 - Titanium Reheat Furnace T-2 in Building 101 - permanent shut down
P144 - No equipment - permanent shut down
P145 - No equipment - permanent shut down
P148 - P151 - No equipment - permanent shut down
P901 - Input in error - permanently shut down
T001 - SP-75 Tank - removed
T002 - Hydrofluoric acid tank - removed
T005 - Tanks T005 - T010 removed from service
T014 - Diesel Tank - removed from service
Z006 - Number not used - permanently shut down
Z010 - No equipment - permanently shut down
Z011 - 1.0 mmBtu/hr Heat Input Furnace 4501 in Building 101 - permanently shut down
Z016 - 1.0 mmBtu/hr Heat Input Furnace 4514 in Building 101 - permanently shut down

B. State Only Enforceable Section (continued)

Z017 - No equipment - permanently shut down
Z018 - No equipment - permanently shut down
Z019 - 1.7 mmBtu/hr Heat Input Furnace 6001 in Building 101 - permanently shut down
Z021 - 0.95 mmBtu/hr Heat Input Furnace 9001 in Building 101 - permanently shut down
Z029 - 9.84 mmBtu/hr Heat Input Furnace 8001 in Building 111 - permanently shut down
Z030 - 0.25 mmBtu/hr Heat Input Furnace 1207 in Building 114 - permanently shut down
Z032 - No equipment - permanently shut down
Z038 - 14.4 mmBtu/hr Heat Input Furnace 4520 in Building 114 - permanently shut down
Z039 - 1.2 mmBtu/hr Heat Input Furnace 4522 in Building 114 - permanently shut down
Z040 - 1.2 mmBtu/hr Heat Input Furnace 4523 in Building 114 - permanently shut down
Z042 - 1.6 mmBtu/hr Heat Input R&S Reheat Furnace #2 in Building 206 - permanently shut down
Z046 - No equipment - permanently shut down
Z047 - No equipment - permanently shut down
Z049 - No equipment - permanently shut down
Z050 - No equipment - permanently shut down
Z069 - No equipment - permanently shut down
Z073 - No equipment - permanently shut down
Z074 - No equipment - permanently shut down
Z080 - Coal material handling in Building 44 - permanently shut down
Z081 - Flyash material handling in Building 44 - permanently shut down
Z082 - Bottom Ash material handling in Building 44 - permanently shut down
Z084 - No equipment - permanently shut down
Z093 - No equipment - permanently shut down

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Gas Boiler #8 (B008)

Activity Description: One of 2 - 98.8 MMBtu/hr gas fired boilers replacing the coal fired boilers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Nebraska Boiler Company model NS-F-73SH: 98.8 mmBtu/hr natural gas-fired (#2 fuel oil as backup) boiler	OAC rule 3745-31-05(A)(3) (PTI #13-3174)	Lower NOx burners and pollutant specific emission limits See A.I.2.a below. This rule also included compliance with the requirements of OAC rules 3745-17-10(B)(1) and 40 CFR, Part 60, Subpart Dc.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, when burning natural gas (NG). The emission limitations specified by this rule are less stringent than the emission limitations established in 40 CFR Part 60, Subpart Dc when burning #2 fuel oil.
	40 CFR, Part 60, Subpart Dc	The #2 fuel oil shall contain no greater than 0.5 weight percent of sulfur. Visible PE from any exhaust stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when burning #2 fuel oil.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(D)	The emission limitation specified by this rule for #2 fuel oil is less stringent than the emission limitation established pursuant to 40 CFR, Part 60, Subpart Dc. There are no sulfur dioxide (SO2) emission limitations when burning only natural gas.
	OAC rule 3745-31-05(C) (PTI #13-3174)	See A.I.2.b through A.I.2.f and A.II.2 through A.II.3 below.
	40 CFR Part 63, Subpart DDDDD	See Attachment 1 of this permit.
	OAC rule 3745-21-08(B)	None, see A.I.2.g below.
	OAC rule 3745-23-06(B)	None, see A.I.2.h below.

2. Additional Terms and Conditions

2.a Allowable mass emissions:
When burning natural gas:
NOx: 16.32 lbs/hr
CO: 8.14 lbs/hr

When burning #2 fuel oil:
NOx: 19.63 lbs/hr
CO: 3.68 lbs/hr
SO2: 23.8 lbs/hr

2.b The total annual PE from boilers B008 and B009 combined shall be limited to 7.0 tons per year.

2.c The total annual SO2 emissions from boilers B008 and B009 combined shall be limited to 112 tons per year.

2.d The total annual NOx emissions from boilers B008 and B009 combined shall be limited to 150 tons per year.

2.e The total annual CO emissions from boilers B008 and B009 combined shall be limited to 17.9 tons per year.

2.f The permittee shall notify the Cleveland Division of Air Quality before any fuel oil is used in this boiler. The notification shall be in writing.

2.g The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05367.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.h The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-3174.

II. Operational Restrictions

1. The permittee shall use #2 fuel oil that contains no greater than 0.5 weight % of sulfur in this emissions unit.

The #2 fuel oil sulfur content limit applies at all times, including periods of startup, shutdown and malfunction.

2. The maximum annual #2 fuel oil usage for this emissions unit shall not exceed 1,400,000 gallons per rolling, 12-month period.

3. The maximum annual natural gas usage of boilers B008 and B009 shall not exceed 1,974.3 mm cu. ft., based on a rolling, 12-month summation of the natural gas usage.

4. The permittee shall burn only natural gas or #2 fuel oil in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as the monitoring and record keeping requirements contained in Permit to Install #13-3174, issued on June 20, 1997: A.III.2. and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. The permittee shall maintain monthly records of the following information:

2.a For #2 fuel oil:

i. the name of the oil supplier;
ii. copies of the oil supplier's analyses for the sulfur content of each shipment of oil and a written statement from the oil supplier that each shipment of oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c;
iii. the gallons of fuel oil used in B008 and B009; and
iv. the rolling, 12-month summation of the monthly #2 fuel oil usage for B008 and B009, in gallons.

2.b For natural gas:

i. the cu. ft. of natural gas used in B008 and B009; and
ii. the rolling, 12-month summation of the monthly natural gas usage for B008 and B009, in cu. ft.

3. For each day during which the permittee burns a fuel other than natural gas or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as the reporting requirements contained in Permit to Install #13-3174, issued on June 20, 1997: A.IV.2. and A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month usage restrictions for natural gas and #2 fuel oil and the 0.5%, by weight, sulfur limitation for the #2 fuel oil.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements specified in the General Terms and Conditions of this permit.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from any exhaust stack shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity when burning natural gas and/or #2 fuel oil.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
For natural gas, compliance may be determined by dividing the emission factor of 1.9 lbs PE/mm cu. ft. for natural gas by the natural gas gross heating value of 1000 Btu/cu. ft. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (7/98).

Actual PE rate = (1.9 lbs PE/mm cu. ft.)/(1000 Btu/cu. ft.) = 0.0019 lb PE/mmBtu

For #2 fuel oil, compliance may be determined by dividing the emission factor of 2.0 lbs PE/1000 gallon for #2 fuel oil by the fuel oil gross heating value of 142,300 Btu/gallon. This emission factor is specified in the USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (9/98).

Actual PE rate = (2.0 lbs PE/1000 gallons)/(142,300 Btu/gallon) = 0.014 lb PE/mmBtu

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:
The #2 fuel oil shall contain no greater than 0.5 weight % of sulfur.

Applicable Compliance Method:
Compliance shall be based on the records for sulfur content for each shipment of #2 fuel oil received specified in Section A.III of these terms and conditions.

1.d Emission Limitation:
23.8 lbs/hr SO2 emissions when burning #2 fuel oil

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 142 lbs SO2/1000 gallons of #2 fuel oil by sulfur content in weight percent and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value in Btu/gallon. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98).

Actual hourly SO2 emission rate = (142 lbs SO2/1000 gallons) X (0.241) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 23.76 lbs SO2/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with the Methods 1 through 4, and 6 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.e Emission Limitations:
16.32 lbs/hr NOx emissions when burning natural gas
8.14 lbs/hr CO emissions when burning natural gas

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for natural gas from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (7/98) and the maximum boiler heat input in Btu/hr, and then dividing the resultant product by the natural gas gross heating value of 1000 Btu/cu. ft.

Actual hourly NOx emission rate = (100 lbs NOx/mm cu. ft.) X (98.8 mmBtu/hr)/(1000 Btu/cu. ft.) = 9.88 lbs NOx/hr

Actual hourly CO emission rate = (84 lbs CO/mm cu. ft.) X (98.8 mmBtu/hr)/(1000 Btu/cu. ft.) = 8.30 lbs CO/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 7 or 10 of 40 CFR Part 60, Appendix A.

1.f Emission Limitations:
19.63 lbs/hr NOx emissions when burning #2 fuel oil
3.68 lbs/hr CO emissions when burning #2 fuel oil

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for fuel oil from USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98) and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value of 142,300 Btu/gallon.

Actual hourly NOx emission rate = (20 lbs NOx/1000 gallons) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 13.89 lbs NOx/hr

Actual hourly CO emission rate = (5 lbs CO/1000 gallons) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 3.47 lbs CO/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 7 or 10 of 40 CFR Part 60, Appendix A.

1.g Emission Limitations:
The total annual PE from B008 and B009 shall be limited to 7.0 tons per year.
The total annual SO2 emissions from B008 and B009 shall be limited to 112 tons per year.
The total annual NOx emissions from B008 and B009 shall be limited to 150 tons per year.
The total annual CO emissions from B008 and B009 shall be limited to 17.9 tons per year.

Applicable Compliance Method:
Compliance with the total annual emission limitations may be determined by combining the annual emission rates in tons per year for B008 and B009 when burning natural gas and/or burning #2 fuel oil.

V. Testing Requirements (continued)

The total annual emission rate in tons per year for B008 and B009 when burning natural gas may be determined by multiplying the appropriate emission factor in lbs/million cu. ft. by the natural gas usage in cubic feet per year, and then dividing the resultant product by a factor of 2000 lbs/ton.

The total annual emission rate in tons per year for B008 and B009 when burning #2 fuel oil may be determined by multiplying the appropriate emission factor in lbs/1000 gallons by the #2 fuel oil usage in gallons per year, and then dividing the resultant product by a factor of 2000 lbs/ton.

The emission factors for burning natural gas are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Tables 1.4-1 and 1.4-2 (7/98).

The emission factors for burning fuel oil are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Table 1.3-1 (9/98).

In addition, the permitee may utilize emission factors for natural gas and/or fuel oil that are based upon emission testing performed for this emissions unit or an identical unit.

Total actual annual emission rate, tons/yr = (lbs emissions/mm cu. ft.) X (mm cu. ft. NG/yr)/(2000 lbs/ton) + (lbs emissions/1000 gallons #2 fuel oil) X (gallons of #2 fuel oil/yr)/(2000 lbs/ton)

VI. Miscellaneous Requirements

1. B008 was installed in August 1997.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Gas Boiler #9 (B009)

Activity Description: One of 2 - 98.8 MMBtu/hr gas fired boilers replacing the coal fired boilers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Nebraska Boiler Company model NS-F-73SH: 98.8 mmBtu/hr natural gas-fired (#2 fuel oil as backup) boiler	OAC rule 3745-31-05(A)(3) (PTI #13-3174)	Lower NOx burners and pollutant specific emission limits See A.I.2.a below. This rule also included compliance with the requirements of OAC rules 3745-17-10(B)(1) and 40 CFR, Part 60, Subpart Dc.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, when burning natural gas (NG). The emission limitations specified by this rule are less stringent than the emission limitations established in 40 CFR Part 60, Subpart Dc when burning #2 fuel oil.
	40 CFR, Part 60, Subpart Dc	The #2 fuel oil shall contain no greater than 0.5 weight percent of sulfur. Visible PE from any exhaust stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when burning #2 fuel oil.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(D)	The emission limitation specified by this rule for #2 fuel oil is less stringent than the emission limitation established pursuant to 40 CFR, Part 60, Subpart Dc. There are no sulfur dioxide (SO2) emission limitations when burning only natural gas.
	OAC rule 3745-31-05(C) (PTI #13-3174)	See A.I.2.b through A.I.2.f and A.II.2 through A.II.3 below.
	40 CFR Part 63, Subpart DDDDD	See Attachment 1 of this permit.
	OAC rule 3745-21-08(B)	None, see A.I.2.g below.
	OAC rule 3745-23-06(B)	None, see A.I.2.h below.

2. Additional Terms and Conditions

2.a Allowable mass emissions:
When burning natural gas:
NOx: 16.32 lbs/hr
CO: 8.14 lbs/hr

When burning #2 fuel oil:
NOx: 19.63 lbs/hr
CO: 3.68 lbs/hr
SO2: 23.8 lbs/hr

2.b The total annual PE from boilers B008 and B009 combined shall be limited to 7.0 tons per year.

2.c The total annual SO2 emissions from boilers B008 and B009 combined shall be limited to 112 tons per year.

2.d The total annual NOx emissions from boilers B008 and B009 combined shall be limited to 150 tons per year.

2.e The total annual CO emissions from boilers B008 and B009 combined shall be limited to 17.9 tons per year.

2.f The permittee shall notify the Cleveland Division of Air Quality before any fuel oil is used in this boiler. The notification shall be in writing.

2.g The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-05367.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.h The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-3174.

II. Operational Restrictions

1. The permittee shall use #2 fuel oil that contains no greater than 0.5 weight % of sulfur in this emissions unit.

The #2 fuel oil sulfur content limit applies at all times, including periods of startup, shutdown and malfunction.

2. The maximum annual #2 fuel oil usage for this emissions unit shall not exceed 1,400,000 gallons per rolling, 12-month period.

3. The maximum annual natural gas usage of boilers B008 and B009 shall not exceed 1,974.3 mm cu. ft., based on a rolling, 12-month summation of the natural gas usage.

4. The permittee shall burn only natural gas or #2 fuel oil in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as the monitoring and record keeping requirements contained in Permit to Install #13-3174, issued on June 20, 1997: A.III.2. and A.III.3. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. The permittee shall maintain monthly records of the following information:

2.a For #2 fuel oil:

i. the name of the oil supplier;
ii. copies of the oil supplier's analyses for the sulfur content of each shipment of oil and a written statement from the oil supplier that each shipment of oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c;
iii. the gallons of fuel oil used in B008 and B009; and
iv. the rolling, 12-month summation of the monthly #2 fuel oil usage for B008 and B009, in gallons.

2.b For natural gas:

i. the cu. ft. of natural gas used in B008 and B009; and
ii. the rolling, 12-month summation of the monthly natural gas usage for B008 and B009, in cu. ft.

3. For each day during which the permittee burns a fuel other than natural gas or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as the reporting requirements contained in Permit to Install #13-3174, issued on June 20, 1997: A.IV.2. and A.IV.3. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month usage restrictions for natural gas and #2 fuel oil and the 0.5%, by weight, sulfur limitation for the #2 fuel oil.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements specified in the General Terms and Conditions of this permit.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from any exhaust stack shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity when burning natural gas and/or #2 fuel oil.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method:
For natural gas, compliance may be determined by dividing the emission factor of 1.9 lbs PE/mm cu. ft. for natural gas by the natural gas gross heating value of 1000 Btu/cu. ft. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (7/98).

Actual PE rate = (1.9 lbs PE/mm cu. ft.)/(1000 Btu/cu. ft.) = 0.0019 lb PE/mmBtu

For #2 fuel oil, compliance may be determined by dividing the emission factor of 2.0 lbs PE/1000 gallon for #2 fuel oil by the fuel oil gross heating value of 142,300 Btu/gallon. This emission factor is specified in the USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (9/98).

Actual PE rate = (2.0 lbs PE/1000 gallons)/(142,300 Btu/gallon) = 0.014 lb PE/mmBtu

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:
The #2 fuel oil shall contain no greater than 0.5 weight % of sulfur.

Applicable Compliance Method:
Compliance shall be based on the records for sulfur content for each shipment of #2 fuel oil received specified in Section A.III of these terms and conditions.

1.d Emission Limitation:
23.8 lbs/hr SO2 emissions when burning #2 fuel oil

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 142 lbs SO2/1000 gallons of #2 fuel oil by sulfur content in weight percent and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value in Btu/gallon. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98).

Actual hourly SO2 emission rate = (142 lbs SO2/1000 gallons) X (0.241) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 23.76 lbs SO2/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with the Methods 1 through 4, and 6 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.e Emission Limitations:
16.32 lbs/hr NOx emissions when burning natural gas
8.14 lbs/hr CO emissions when burning natural gas

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for natural gas from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (7/98) and the maximum boiler heat input in Btu/hr, and then dividing the resultant product by the natural gas gross heating value of 1000 Btu/cu. ft.

Actual hourly NOx emission rate = (100 lbs NOx/mm cu. ft.) X (98.8 mmBtu/hr)/(1000 Btu/cu. ft.) = 9.88 lbs NOx/hr

Actual hourly CO emission rate = (84 lbs CO/mm cu. ft.) X (98.8 mmBtu/hr)/(1000 Btu/cu. ft.) = 8.30 lbs CO/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 7 or 10 of 40 CFR Part 60, Appendix A.

1.f Emission Limitations:
19.63 lbs/hr NOx emissions when burning #2 fuel oil
3.68 lbs/hr CO emissions when burning #2 fuel oil

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for fuel oil from USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98) and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value of 142,300 Btu/gallon.

Actual hourly NOx emission rate = (20 lbs NOx/1000 gallons) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 13.89 lbs NOx/hr

Actual hourly CO emission rate = (5 lbs CO/1000 gallons) X (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 3.47 lbs CO/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 7 or 10 of 40 CFR Part 60, Appendix A.

1.g Emission Limitations:
The total annual PE from B008 and B009 shall be limited to 7.0 tons per year.
The total annual SO2 emissions from B008 and B009 shall be limited to 112 tons per year.
The total annual NOx emissions from B008 and B009 shall be limited to 150 tons per year.
The total annual CO emissions from B008 and B009 shall be limited to 17.9 tons per year.

Applicable Compliance Method:
Compliance with the total annual emission limitations may be determined by combining the annual emission rates in tons per year for B008 and B009 when burning natural gas and/or burning #2 fuel oil.

V. Testing Requirements (continued)

The total annual emission rate in tons per year for B008 and B009 when burning natural gas may be determined by multiplying the appropriate emission factor in lbs/million cu. ft. by the natural gas usage in cubic feet per year, and then dividing the resultant product by a factor of 2000 lbs/ton.

The total annual emission rate in tons per year for B008 and B009 when burning #2 fuel oil may be determined by multiplying the appropriate emission factor in lbs/1000 gallons by the #2 fuel oil usage in gallons per year, and then dividing the resultant product by a factor of 2000 lbs/ton.

The emission factors for burning natural gas are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Tables 1.4-1 and 1.4-2 (7/98).

The emission factors for burning fuel oil are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Table 1.3-1 (9/98).

In addition, the permitee may utilize emission factors for natural gas and/or fuel oil that are based upon emission testing performed for this emissions unit or an identical unit.

Total actual annual emission rate, tons/yr = (lbs emissions/mm cu. ft.) X (mm cu. ft. NG/yr)/(2000 lbs/ton) + (lbs emissions/1000 gallons #2 fuel oil) X (gallons of #2 fuel oil/yr)/(2000 lbs/ton)

VI. Miscellaneous Requirements

1. B009 was installed in August 1997.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Coating - B53 (K002)

Activity Description: Carpenter Shop Spray Paint Booth - Bldg 53

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 53, carpenter shop paint spray booth followed by an air drying area to coat miscellaneous metal parts (controlled by a fiberglass filtration system)	OAC rule 3745-31-05(A)(3) (PTI #13-2153)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(d), 3745-17-07(A) and 3745-17-11(B). See A.I.2.a below.
	OAC rule 3745-21-09(U)(1)(d)	Any coating employed in this coating line shall not exceed 3.5 pounds VOC (volatile organic compounds) per gallon of coating, excluding water and exempt solvents, as applied.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the fiberglass filtration system exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr.

2. Additional Terms and Conditions

2.a The maximum daily average capacity of this coating line shall be 10 gallons of applied coatings per hour.

VOC emissions shall not exceed 2333 pounds of VOC per month (including cleanup material) and 14.3 tons of VOC per year (including 0.3 ton for cleanup).

II. Operational Restrictions

1. The permittee shall operate the fiberglass filtration system whenever this emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as the monitoring and record keeping requirements contained in Permit to Install #13-2153, issued on June 19, 1991: A.III.2., A.III.3., and A.III.4. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

2. The permittee shall maintain daily records which list the following information for each surface coating employed in this emissions unit:

a. the company identification for each coating employed;

b. the number of gallons of each coating employed;

c. the total number of hours the emissions unit was in operation; and

d. the average hourly volume usage rate for all coatings, calculated as (b)/(c), in gallons per hour (average).

3. The permittee shall collect and record the following information each month:

a. the company identification for each coating and cleanup material employed;

b. the number of gallons of each coating and cleanup material employed;

c. the VOC content of each coating and cleanup material, in pounds per gallon;

d. the total VOC emission rate for all coatings and cleanup materials, in pounds per month, calculated as the sum of (b) x (c) for each coating and cleanup material; and

e. the VOC content of each coating, in pounds/gallon excluding water and exempt solvents, as applied.

4. The permittee shall collect and record the following information each year for the purpose of determining annual VOC emissions:

a. annual VOC emissions, tons/year = (Sum of A.III.3.d for 12 months in a calendar year, lbs)/(2000 lbs/ton)

5. The permittee shall maintain daily records that document any time periods when the fiberglass filtration system was not in service when the emissions unit was in operation.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as the reporting requirements contained in Permit to Install #13-2153, issued on June 19, 1991: A.IV.2., A.IV.3., A.IV.4., and A.IV.5. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

2. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days following the end of the calendar month.

3. The permittee shall submit quarterly deviation (excursion) reports that identify each deviation of the average hourly coating usage restriction and the monthly VOC emission rate of 2333 pounds of VOC per month. Each report shall include a copy of the record of the actual coating usage. These deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

4. The permittee shall submit annual reports that specify the total emissions of VOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

IV. Reporting Requirements (continued)

5. The permittee shall notify the Cleveland DAQ in writing of any daily record showing that the fiberglass filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days after the event occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
3.5 pounds VOC per gallon of coating, excluding water and exempt solvents, as applied

Applicable Compliance Method:
Compliance shall be based on the record keeping in A.III.3. The VOC content of the coatings shall be determined using USEPA Method 24 or 24A in 40 CFR, Part 60, Appendix A.

1.b Emissions Limitations:
The maximum daily average capacity of this coating line shall be 10 gallons of applied coatings per hour.
VOC emissions shall not exceed 2333 pounds of VOC per month (including cleanup material).
VOC emissions shall not exceed 14.3 tons per year (including 0.3 ton for cleanup).

Applicable Compliance Method:
Compliance may be based on the record keeping in Sections A.III.3.

1.c Emission Limitation:
PE shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
To determine the actual worst case particulate emission rate, the following equation shall be used for the paint spraying operation:

Actual hourly PE rate, lbs PE/hr = maximum coating solids usage rate, in lbs/hr X (1-TE) X (1-CE)

Where:
TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (40 CFR 60.313 or 40 CFR 60.453), expressed as a fraction

CE = control efficiency of the control equipment (assumed to be 90%), expressed as a fraction

If required, the permittee shall determine compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.d Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

1. K002 and the fiberglass filtration system were installed in 1990.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnaces 2502 Heat Treat and Age B120 (P003)

Activity Description: 2502 Heat Treat and Age Oven - Bldg 120

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 120, 2.97 mmBtu/hr, indirect heat, natural gas-fired heat treat furnace (number 2502) operating at a maximum process weight rate of 2,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger; also 4.56 mmBtu/hr, direct heat, natural gas-fired age oven (number 2502) with a maximum process weight rate of 2,500 lbs/hr of metal	OAC rule 3745-17-07(B)(1)	Visible PE from the heat treat furnace shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; dropping bags through a chute to introduce the hydrogen scavenger into the furnace or the oven to minimize or eliminate visible emissions of fugitive dust.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
Visible emissions of fugitive dust from the heat treat furnace shall not exceed 20% opacity as a 3-minute average.
Visible emissions of fugitive dust from the age oven shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. The P003 heat treat furnace (number 2502) was installed in 1952 and is a fugitive emission source.

The P003 age oven (number 2502) was installed in 1952 and is a fugitive emission source.

(P003 has no stacks and therefore is not suitable for stack testing.)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnaces 2503 Heat Treat and Age B120 (P004)

Activity Description: 2503 Heat Treat and Age Oven - Bldg 120

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 120, 2.97 mmBtu/hr, indirect heat, natural gas-fired heat treat furnace (number 2503) operating at a maximum process weight rate of 2,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger; also 4.56 mmBtu/hr, direct heat, natural gas-fired age oven (number 2503) with a maximum process weight rate of 2,500 lbs/hr of metal	OAC rule 3745-17-07(B)(1)	Visible PE from the heat treat furnace shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; dropping bags through a chute to introduce the hydrogen scavenger into the furnace or the oven to minimize or eliminate visible emissions of fugitive dust.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
Visible emissions of fugitive dust from the heat treat furnace shall not exceed 20% opacity as a 3-minute average.
Visible emissions of fugitive dust from the age oven shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. The P003 heat treat furnace (number 2503) was installed in 1952 and is a fugitive emission source.

The P003 age oven (number 2503) was installed in 1952 and is a fugitive emission source.

(P003 has no stacks and therefore is not suitable for stack testing.)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 35001 Hammer (P007)

Activity Description: 35001 Steam Hammer - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, number 35001 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-2321	0.0279	0.3561	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P007, P008, P009, and P010 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P007, P008, P009, and P010.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P007 and the water spray tunnel stack were installed in 1950.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 35002 Hammer (P008)

Activity Description: 35002 Steam Hammer - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, number 35002 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-2321	0.0279	0.3561	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P007, P008, P009, and P010 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P007, P008, P009, and P010.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P008 and the water spray tunnel stack were installed in 1950.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 25001 Hammer (P009)

Activity Description: 25001 Steam Hammer - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, number 25001 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-2321	0.0279	0.3561	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P007, P008, P009, and P010 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P007, P008, P009, and P010.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P009 and the water spray tunnel stack were installed in 1950.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 8001 Hammer (P010)

Activity Description: 8001 Steam Hammer - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, number 8001, steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-2321	0.0279	0.3561	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P007, P008, P009, and P010 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P007, P008, P009, and P010.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P010 and the water spray tunnel stack were installed in 1950.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 15000 (P011)

Activity Description: 15000 Hydraulic Press Complex - Bldg 112A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112A, number 15000 (ton) hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 38,900 ACFM. P011 and the water spray tunnel stack were installed in 1952.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 8001 (P012)

Activity Description: 8001 Hydraulic Press Complex - Bldg 112A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112A, number 8001 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 28,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-2207	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1988	0.0098, .0099	0.074, 0.121	Y
E-2543	0.011	0.121	Y
E-3241	0.0011	0.0078	N
FE4-332A	0.0023	0.0082	N
E-2643	0.0004	0.0099	N
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2503	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

V. Testing Requirements (continued)

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

V. Testing Requirements (continued)

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 70,000 ACFM. P012 and the water spray tunnel stack were installed in 1953.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 8002/2500 (P013)

Activity Description: 8002 & 2500 Ton Hydraulic Press Complex - Bldg 112A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112A, number 8002 and number 2500 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 28,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-2207	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1988	0.0099, 0.0098	0.121, 0.074	Y
E-2503	0.011	0.081	Y
E-2543	0.011	0.121	Y
E-2643	0.0004	0.0099	N
E-2505	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-3241	0.0011	0.0078	Y
FE4-332A	0.0023	0.0082	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

V. Testing Requirements (continued)

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

V. Testing Requirements (continued)

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 60,000 ACFM. P013 and the water spray tunnel stack were installed in 1971.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 3004 (P014)

Activity Description: 3004 Hydraulic Press Complex - Bldg 112A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112A, number 3004 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 13,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-2302	0.011	0.081	Y
E-2543	0.011	0.121	Y
E-2643	0.0004	0.0099	N
E-2503	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-1988	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 36,000 ACFM. P014 and the water spray tunnel stack were installed in 1969.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mech 1300 T Ajax (P017)

Activity Description: 1300 Ton Ajax Press - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1,300 ton Ajax mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 1,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	-----	0.3753	N
PL-592	-----	0.296	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P017, P018, P019, P129, and P429 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P017, P018, P019, P129, and P429.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P017 and the water spray tunnel stack were installed in 1957.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mech 1600 T Erie (P018)

Activity Description: 1600 Ton Erie Press - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1,600 ton Erie mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 2,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	-----	0.3753	N
PL-592	-----	0.296	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P017, P018, P019, P129, and P429 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P017, P018, P019, P129, and P429.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P018 and the water spray tunnel stack were installed in 1957.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mech 4000 T Ajax (P019)

Activity Description: 4000 Ton Ajax Press - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1,600 ton Ajax mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 7,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	-----	0.3753	N
PL-592	-----	0.296	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P017, P018, P019, P129, and P429 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P017, P018, P019, P129, and P429.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack. P019 and the water spray tunnel stack were installed in 1957.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 3003 (P024)

Activity Description: 3003 Hydraulic Press Complex - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, number 3003 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 13,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-1988	0.011	0.081	Y
E-2543	0.011	0.121	Y
E-2643	0.0004	0.0099	N
E-2207	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 56,687 ACFM. P024 and the water spray tunnel stack were installed in 1953.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 35000 (P029)

Activity Description: 35000 Hydraulic Press Complex - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, number 35000 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 50,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-2302	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2505	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-2451	0.011	0.081	Y
E-1988	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 50,800 ACFM. P029 and the water spray tunnel stack were installed in 1955.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 50000 (P030)

Activity Description: 50000 Hydraulic Press Complex - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, number 50000 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 50,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-1988	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2505	0.011	0.081	Y
E-2451	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 69,319 ACFM. P030 and the water spray tunnel stack were installed in 1955.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Torch Pit #1 (P032)

Activity Description: Acetylene Arc System - Torch Pit No. 1 (East) - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, acetylene arc system - torch pit number 1 (east) (Particulate emissions (PE) are controlled by a cartridge dust collector.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr.

2. Additional Terms and Conditions

2.a All PE from this emissions unit shall be vented to the cartridge dust collector.

II. Operational Restrictions

1. Material collected by the cartridge dust collector shall be handled in such a way there shall be no emission of fugitive dust. Material spilled from the cartridge dust collector hoppers or from screw conveyor(s) shall be cleaned up upon discovery.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge dust collector serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

f. for 90 consecutive days this emissions unit's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are documented. The permittee may again reduce the frequency of visual observations from daily to weekly after obtaining 90 consecutive days of observations with no visible emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge dust collector serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge dust collector stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the cartridge dust collector stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P032 and P432 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be within 12 months of permit issuance for one of the following identical emissions units P032 and P432.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE in A.I.1.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P032 and a scrubber were installed in 1967. The cartridge dust collector replaced the scrubber in 1981.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn HT - #1 Swindell (P046)

Activity Description: No. 1 Swindell Heat Treat Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, Swindell, electric heat treat furnace (number 1), operating at a maximum process weight rate of 7,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr*.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 9.9 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). However, based on Table I of OAC rule 3745-17-11 and a process weight rate of 7,508 lbs/hr, the allowable PE limitation would be 9.9 lbs/hr.)

II. Operational Restrictions

1. The permittee shall burn only natural gas or use electrical energy in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each day during which a heat source other than electric heat was employed in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 in any of the identical emissions units P055, P102, and P402.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P046 was installed in June 1955.

P046 is both a stack source and a fugitive dust source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn HT - #2 Swindell (P047)

Activity Description: No. 2 Swindell Heat Treat Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, Swindell, electric heat treat furnace (number 2), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr*.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 7.1 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). However, based on Table I of OAC rule 3745-17-11 and a process weight rate of 4,508 lbs/hr, the allowable PE limitation would be 7.1 lbs/hr.)

II. Operational Restrictions

1. The permittee shall burn only natural gas or use electrical energy in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each day during which a heat source other than electric heat was employed in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 in any of the identical emissions units P055, P102, and P402.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P047 was installed in June 1955.

P047 is both a stack source and a fugitive dust source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn HT - #3 Swindell (P048)

Activity Description: No. 3 Swindell Heat Treat Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, Swindell, electric heat treat furnace (number 3), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr*.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 7.1 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). However, based on Table I of OAC rule 3745-17-11 and a process weight rate of 4,508 lbs/hr, the allowable PE limitation would be 7.1 lbs/hr.)

II. Operational Restrictions

1. The permittee shall burn only natural gas or use electrical energy in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each day during which a heat source other than electric heat was employed in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 in any of the identical emissions units P055, P102, and P402.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P048 was installed in June 1955.

P048 is both a stack source and a fugitive dust source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn HT - #4 Swindell (P049)

Activity Description: No. 4 Swindell Heat Treat Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, Swindell, electric heat treat furnace (number 4), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 7.1 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). However, based on Table I of OAC rule 3745-17-11 and a process weight rate of 4,508 lbs/hr, the allowable PE limitation would be 7.1 lbs/hr.)

II. Operational Restrictions

1. The permittee shall burn only natural gas or use electrical energy in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each day during which a heat source other than electric heat was employed in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 in any of the identical emissions units P055, P102, and P402.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P049 was installed in June 1955.

P049 is both a stack source and a fugitive dust source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn HT - #5 Dispatch (30000) (P054)

Activity Description: No. 5 H.T. Despatch Furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 8.20 mmBtu/hr, indirect heat, natural gas-fired heat treat Despatch furnace (number 5), operating at a maximum process weight rate of 7,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are vented through a stack.)	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/MMBtu of actual heat input.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-11(B) Table I	PE shall not exceed 0.551 lb/hr*.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b Because this emission unit is fired only with natural gas, there is no applicable SO2 emission limitation from Chapter 3745-18.

2.c *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 9.9 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). However, based on Table I of OAC rule 3745-17-11 and a process weight rate of 7,508 lbs/hr, the allowable PE limitation would be 9.9 lbs/hr.)

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 below.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

1.d Emission Limitation:
PE shall not exceed 0.551 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P054 and a stack were installed in 1967.

P054 is both a fugitive dust source and a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #15 Soaker (P055)

Activity Description: 120,000 lb Ignot Soaking Furnace (No. 15) - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 8.00 mmBtu/hr, indirect heat, natural gas-fired ingot soaking furnace (number 15), operating at a maximum process weight rate of 25,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are vented through a stack.)	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/MMBtu of actual heat input.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-11(B)	.551 lb/hr* (based upon Table I) from the control device

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b Because this emission unit is fired only with natural gas, there is no applicable SO2 emission limitation from Chapter 3745-18.

2. Additional Terms and Conditions (continued)

2.c *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 10 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). In addition, based on Table I of OAC rule 3745-17-11 and a process weight rate of 25,008 lbs/hr, the allowable PE limitation (i.e., 22.3 lbs/hr) is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.)

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 below.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.c Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
.551 lb/hr of PE

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in A.III. A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P055, P102, and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, and P402 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1 for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

V. Testing Requirements (continued)

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P055 and a stack were installed in 1955. The cartridge dust collector was installed in 1977.

P055 is both a fugitive dust source and a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-1 B101 (P083)

Activity Description: Titanium Reheat Furnaces T-1 - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 8.00 mmBtu/hr, direct heat, natural gas-fired titanium preheat furnace (number T-1), and not using hydrogen scavenger (Particulate emissions (PE) are vented through a stack.)	OAC rule 3745-17-07(A)(1)	See A.I.2.a.
	OAC rule 3745-17-11	See A.I.2.a.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. P083 was installed in October 1967 and is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Blast-T Whl B206 (P086)

Activity Description: Wheelabrator - Titanium - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grit blasting machine in an enclosed booth (Particulate emissions (PE) are controlled by a baghouse dust collector.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	PE shall not exceed 2.20 lbs/hr, based upon Figure II.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

3. The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) X (b)/(c).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the baghouse serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 2.20 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in A.III. A PE factor in lb PE/lb metal cleaned will be developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P086, P108 and P163 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P086, P108 and P163 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P086 and a Rotoclone scrubber were installed in 1966. A baghouse replaced the Rotoclone in 1976.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-7 B206 (P087)

Activity Description: Titanium Reheat Furnace T-7

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 18.64 mmBtu/hr, direct heat, natural gas-fired titanium reheat furnaces (number T-7), not using hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A) (PTI #13-016) (Issued under Chapter EP-30)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A)(1).
	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

2. Additional Terms and Conditions (continued)

2.c The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-016. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-016.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. P087 was installed in May 1974 and is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-1 (P091)

Activity Description: Titanium Grinding Booth #1 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-1), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P091 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-2 (P092)

Activity Description: Titanium Grinding Booth #2 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-2), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P092 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-3 (P093)

Activity Description: Titanium Grinding Booth #3 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-3), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P093 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-4 (P094)

Activity Description: Titanium Grinding Booth #4 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-4), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P094 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-6 (P096)

Activity Description: Titanium Grinding Booth #6 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-6), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P096 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Grind Booth T-7 (P097)

Activity Description: Titanium Grinding Booth #7 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, titanium grinding booth (number T-7), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) Figure II	PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined. See A.I.2.a below.

2. Additional Terms and Conditions

2.a Emissions units P091, P092, P093, P094, P096, and P097 are located in close proximity to each other. The allowable hourly PE rate from the six cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date	Emission data
March 18, 1982	PE factor, 0.025 lb PE/lb metal ground
.	actual PE rate at 12.7 lbs PE/hr
.	cleaning at a rate of 508 lbs metal parts/hr

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094, P096 and P097:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1- fractional control efficiency for the cartridge filters) / (c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filter serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the average hourly PE exceeded the allowable PE limit in A.I.1 and the actual average hourly PE rate for each such month.

The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the cartridge filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 9.48 lbs/hr from all six cartridge filters serving P091, P092, P093, P094, P096, and P097, combined.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) X (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) X (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) X (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) X (METAL94, lbs Metal/month)/(hrs of operation/month)
UNCPE96, lbs PE/hr = (UNCFAC96, lbs PE/lb Metal) X (METAL96, lbs Metal/month)/(hrs of operation/month)
UNCPE97, lbs PE/hr = (UNCFAC97, lbs PE/lb Metal) X (METAL97, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr + UNCPE96, lbs PE/hr + UNCPE97, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] X UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] X UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] X UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] X UNCPE94, lbs PE/hr
ACTPE96, lbs PE/hr = [(100 - ECEB96)/100] X UNCPE96, lbs PE/hr
ACTPE97, lbs PE/hr = [(100 - ECEB97)/100] X UNCPE97, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr + ACTPE96, lbs PE/hr + ACTPE97, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094
METAL96, lbs/month = Amount of metal ground in EU# P096
METAL97, lbs/month = Amount of metal ground in EU# P097

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr
ACTPE96 = actual hourly PE rate of P096, lbs PE/hr
ACTPE97 = actual hourly PE rate of P097, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

V. Testing Requirements (continued)

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %
ECEB96 = emission control efficiency of the cartridge filter of P096, %
ECEB97 = emission control efficiency of the cartridge filter of P097, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC96 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC97 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr
UNCPE96 = uncontrolled hourly PE rate of P096, lbs PE/hr
UNCPE97 = uncontrolled hourly PE rate of P097, lbs PE/hr
COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093, P094, P096, and P097, lbs PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P091, P092, P093, P094, P096, and P097 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093, P094, P096, and P097.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed for the baghouse during each test run

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P097 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-8 Anneal B206 (P100)

Activity Description: Titanium Annealing Furnace T-8 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 22.20 mmBtu/hr, direct heat, natural gas-fired titanium annealing furnace (number T-8), not using hydrogen scavenger and operating at a maximum process weight rate of 1,390 lbs/hr of metal (Particulate emissions (PE) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A)(3) (PTI #13-425)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A)(1).
	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

2. Additional Terms and Conditions (continued)

2.c The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. P100 was installed in 1978 and is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #12 Soaker (P102)

Activity Description: No. 12 Soaker Furnace - Bldg 150

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 9.00 mmBtu/hr, indirect heat, natural gas-fired soaker furnace (number 12), operating at a maximum process weight rate of 44,250 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are controlled by a reverse air baghouse.)	OAC rule 3745-31-05(A)(3) (PTI #13-763)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-10(B)(1), 3745-17-07(A)(1), 3745-17-08(B), 3745-17-11(B) Table I, 3745-17-08(B), 3745-17-07(B)(1), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E).
	OAC rule 3745-17-10(B)(1)	PE from the burner flue gas exhaust shall not exceed 0.020 lb/MMBtu of actual heat input.
	OAC rule 3745-17-07(A)(1)	Visible PE from the reverse air baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	PE from the exhaust stack of the reverse air baghouse controlling emissions generated by the internal furnace chamber shall not exceed 0.551 lb/hr* (based upon Table I).
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2. Additional Terms and Conditions (continued)

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763.

2.d Because this emission unit is fired only with natural gas, there is no applicable SO2 emission limitation from Chapter 3745-18.

2.e *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 10 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). In addition, based on Table I of OAC rule 3745-17-11 and a process weight rate of 44,258 lbs/hr, the allowable PE limitation (i.e., 32.6 lbs/hr) is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.)

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 below.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the average hourly PE rate in lbs/hr exceeded the limit in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.c Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
PE from the exhaust stack of the reverse air baghouse controlling emissions generated by the internal furnace chamber shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in A.III. A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P055, P102, and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, and P402 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1.for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P102 was installed in 1963. The reverse air baghouse was installed in 1980.

P102 is both a fugitive source and stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 8003/2583 (P104)

Activity Description: 8003 & 2583 Hydraulic Press Complex - Bldg 112A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112A, number 8003, hydraulic finishing press complex consisting of 8,000 ton and a 2,500 ton hydraulic forming press for the production of metal forgings, operating at a maximum batch process weight rate of 18,000 lbs/hr of metal, a lubricant usage of 250 lbs/hr	OAC rule 3745-31-05(A)(3) (PTI #13-846)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-11(B), 3745-17-07(A)(1), 3745-17-07(B)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2).
	OAC rule 3745-17-11(B)	See A.I.2.e below.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.b below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the EFB. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

2.b The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.c For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.d As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

2.e The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.d; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.027	Y
E-2207	0.011	0.081	Y
E-2302	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-1988	0.011	0.081	Y
E-2543	0.011	0.121	Y
FE4-332A	0.0023	0.0082	N
E-3241	0.0011	0.0078	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in A.I.1 and the actual average hourly PE rate for each such day.

IV. Reporting Requirements (continued)

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P104, P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P104 and the EFB were installed in 1982.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn RH 17001 B111 (P105)

Activity Description: 17001 Furnace - Bldg

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 16.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 17001), operating at a maximum process weight rate of 17,000 lbs/hr of metal (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are fugitive emissions.)	OAC rule 3745-31-05(A)(3) (PTI #13-846)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B), 3745-17-07(B)(1), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E).
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2. Additional Terms and Conditions (continued)

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-846.

2.d The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. P105 was installed in November 1981. P105 is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn RH 6005 B210 (P107)

Activity Description: 6005 Reheat Furnace - Bldg 210

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 210, 5.36 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 6005), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are fugitive emissions.)	OAC rule 3745-31-05(A)(3) (PTI #13-1216)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B), 3745-17-07(B)(1), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E).
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-763. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2. Additional Terms and Conditions (continued)

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 13-846.

2.d The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. P107 was installed in November 1955. P107 is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Blast #1 Whl B114 (P108)

Activity Description: No. 1 Wheelabrator Cabinet - Bldg 114A

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114A, number 1 Wheelabrator shot blast cabinet (Particulate emissions (PE) are controlled by a wet type, Rotoclone impaction scrubber.)	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	PE shall not exceed 2.9 lbs/hr, based upon Figure II.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

2. The permittee shall maintain copies of all the stack test results used to develop each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

3. The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) X (b)/(c).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the scrubber serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 2.91 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in A.III. A PE factor in lb PE/lb metal cleaned will be developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P086, P108, and P163 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P086, P108, and P163 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P108 and a Rotoclone impaction scrubber were installed in 1962.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #2 Die B202 (P119)

Activity Description: No. 2 Die Preheat Furnace - Bldg 202

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 202, 16.36 mmBtu/hr, direct heat, natural gas-fired die preheat furnace (number 2), not using hydrogen scavenger (Particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. P119 was installed in October 1994 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnance South H.T. and Age B150 (8001) (P121)

Activity Description: South Heat Treat & Age Ovens- Bldg 150 (8001)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 10.66 mmBtu/hr, direct heat, natural gas-fired heat treat furnace (number 8001, south heat treat), operating at a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger and a 13.50 mmBtu/hr, direct heat, natural gas-fired age oven (number 8001, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are fugitive emissions.)	OAC rule 3745-31-05(A)(3) (PTI #13-1687)	This rule also includes compliance with the requirements of 3745-17-07(B)(1), 3745-17-08(B), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E). PE shall be less than 1.0 ton/year.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2. Additional Terms and Conditions (continued)

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1687. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1687.

2.d The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.b Emission Limitation:
PE shall be less than 1.0 ton/year.

Applicable Compliance Method:
When burning natural gas, compliance with the annual PE limitation may be demonstrated by the following calculations:

Actual PE of P121 furnace, lb/hr = (0.0019 lb of PE/mmBtu) X (10.66 mmBtu/hr) = 0.020254 lb/hr

Actual PE of P121 oven, lb/hr = (0.0019 lb of PE/mmBtu) X (13.5 mmBtu/hr) = 0.02565 lb/hr

Actual PE of P121, lbs/hr = (Actual PE of P121 furnace) + (Actual PE of P121 oven)

Actual PE of P121, lbs/hr = (0.020254 + 0.02565) lb/hr = 0.045904 lb/hr

Annual PE of P121, ton/yr = (0.045904 lb/hr) X (8760 hrs/yr)/(2000 lbs/ton) = 0.20 ton/yr

VI. Miscellaneous Requirements

1. The P121 heat treat furnace was installed in February 1974 and is a fugitive source.

The P121 age oven was installed in February 1974 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furnance North H.T. and Age B150 (8002) (P122)

Activity Description: North Heat Treat & Age Ovens - Bldg 150 (8002)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 3.78 mmBtu/hr, direct heat, natural gas-fired heat treat furnace (number 8002, north heat treat), operating at a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger and a 7.48 mmBtu/hr, direct heat, natural gas-fired age oven (number 8002, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are fugitive emissions.)	OAC rule 3745-31-05(A)(3) (PTI #13-1687)	This rule also includes compliance with the requirements of 3745-17-07(B)(1), 3745-17-08(B), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E). PE shall be less than 1.0 ton/year.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2. Additional Terms and Conditions (continued)

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1687. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1687.

2.d The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

1.b Emission Limitation:
PE shall be less than 1.0 ton/year.

Applicable Compliance Method:
When burning natural gas, compliance with the annual PE limitation may be demonstrated by the following calculations:

Actual PE of P122 furnace, lb/hr = (0.0019 lb of PE/mmBtu) X (3.78 mmBtu/hr) = 0.00718 lb/hr

Actual PE of P122 oven, lb/hr = (0.0019 lb of PE/mmBtu) X (7.48 mmBtu/hr) = 0.0142 lb/hr

Actual PE of P122, lbs/hr = (Actual PE of P122 furnace) + (Actual PE of P122 oven)

Actual PE of P121, lbs/hr = (0.00718 + 0.0142) lb/hr = 0.02138 lb/hr

Annual PE of P122, ton/yr = (0..02138 lb/hr) X (8760 hrs/yr)/(2000 lbs/ton) = 0.0936 ton/yr

VI. Miscellaneous Requirements

1. The P122 heat treat furnace was installed in February 1974 and is a fugitive source.

The P122 age oven was installed in February 1974 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-9 B206 (P125)

Activity Description: Titanium Reheat Furnace T-9 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 18.64 mmBtu/hr, direct heat, natural gas-fired titanium and steel preheat furnace (number T-9), not using hydrogen scavenger, operating at a maximum process weight rate of 100,000 lbs/load (All particulate emissions (PE), sulfur dioxide emissions (SO2), and nitrogen oxides emissions (NOx) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A)(3) (PTI #13-1922)	Visible particulate emissions (PE) from any stack shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 0.020 lb/mmBtu of actual heat input. PE shall not exceed 0.30 ton/year. SO2 shall not exceed 0.03 ton/year. NOx shall not exceed 6.00 tons/year The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), and 3745-23-06(B).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(E)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1922. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-1922.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each year for this emissions unit:
a. the maximum heat input of P125, 18.64 million Btu/hour;
b. the SO2 emission factor, 0.6 lb of SO2/10^6 CF;
c. the gross heating value of natural gas, 1000 Btu/cubic foot (CF);
d. the actual hourly SO2 emission rate, i.e., (a) X (b)/(c), 0.0112 lb of SO2/hour;
e. the hours of operation, hours/year;
f. the conversion factor, 1 ton/2000 lbs;
g. the actual annual SO2 emission rate, i.e., (d) X (e) X (f), tons of SO2/year;
h. the NOx emission factor, 100 lbs of NOx/10^6 CF;
i. the actual hourly NOx emission rate, i.e., (a) X (h)/(c), 1.864 lbs of NOx/hour; and
j. the actual annual NOx emission rate, i.e., (i) X (e) X (f), tons of NOx/year.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit annual deviation (or excursion) reports that identify each year during which the actual annual SO2 and NOx emission rates exceeded the limits in A.I.1. The reports shall be submitted Cleveland DAQ by January 31 of each year; and each report shall cover the previous calendar year. If no emission limitation deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviations occurred during the year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.*

PE shall not exceed 0.30 ton/year.*

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation shall be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

Actual PE, tons/year = (0.0019 lb of PE/mmBtu) X (18.64 mmBtu/hr) X (8760 hours/year) X (ton/2000 lbs) = 0.155 ton/year

*The pound/million Btu and ton/year emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.c Emission Limitation:
SO2 shall not exceed 0.03 ton/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

1.d Emission Limitation:
NOx shall not exceed 6.0 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

VI. Miscellaneous Requirements

1. P125 was installed in 1988 and is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 2503 Mechanical Press (P129)

Activity Description: 2503 Mechanical Press - water based lubes

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, number 2503, 2,500 ton mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 4,500 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	-----	0.3753	N
PL-592	-----	0.296	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P017, P018, P019, P129, and P429 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P017, P018, P019, P129, and P429.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P129 and the stack were installed in 1963.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Press 3005 (P146)

Activity Description: 3005 Hydraulic Press Complex - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, number 3005 a 3000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 13,000 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1197	0.011	0.121	Y
E-1988	0.011	0.081	Y
E-2543	0.011	0.121	Y
E-2207	0.011	0.081	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P011, P012, P013, P014, P024, P029, P030, and P146 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P024, P029, P030, and P146.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a stack at a nominal exit gas flow rate of 56,687 ACFM. P146 and the water spray tunnel stack were installed in 1953.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn Heat Treat Line #3 B150 (P152)

Activity Description: Heat Treat Line #3 - Bldg 150

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 13.00 mmBtu/hr, direct heat, natural gas-fired heat treat furnace not using hydrogen scavenger and a 13.50 mmBtu/hr, direct heat, natural gas-fired age oven (number 8001, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (All particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A)(3) (PTI #13-3008)	This rule also includes compliance with the requirements of OAC rules 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E). Visible particulate emissions (PE) from any stack shall not exceed 5% opacity, as a 6-minute average, PE shall not exceed .020 lb/mmBtu* of actual heat input, 0.342 lb/hr*, and 1.5 tons/yr*. NOx emissions shall not exceed 0.20 lb/mmBtu* of actual heat input, 3.42 lbs/hr*, and 15.0 tons/yr*. *The lb/mmBtu, lbs/hr and tons/year emission limitations are based emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with this emission limitation.
	OAC rule 3745-17-11(B) Table I	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See A.I.2.a below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-06(E)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3008. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3008.

2.c The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from any stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:
PE shall not exceed 0.342 lbs/hr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly PE limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5 and the procedures specified in OAC rule 3745-17-03(B)(10).

1.d Emission Limitation:
PE emissions shall not exceed 1.50 tons/yr.

Applicable Compliance Method:
The annual PE limitation was established by multiplying the hourly PE limitation by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual PE limitation is ensured while compliance with the hourly PE limitation is maintained.

1.e Emission Limitation:
NOx emissions shall not exceed 0.20 lb /mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation shall be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for NOx in natural gas combustion (100 lbs of NOx/mm cu. ft.) divided by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual NOx, lbs/mmBtu = (100 lbs of NOx/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.10 lb of Nox/mmBtu

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission testing conducted in accordance with Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A.

1.f Emission Limitation:
NOx emissions shall not exceed 3.42 lbs/hr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7.

1.g Emission Limitation:
NOx emissions shall not exceed 15.0 tons/yr.

Applicable Compliance Method:
The annual NOx limitation was established by multiplying the hourly NOx limitation by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual NOx limitation is ensured while compliance with the hourly NOx limitation is maintained.

VI. Miscellaneous Requirements

1. P152 was installed in 1996 and is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-12 Titanium Preheat B210 (P154)

Activity Description: T-12 Titanium Preheat Furnace - Bldg 210

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 210, 18.60 mmBtu/hr, direct heat, natural gas-fired titanium and steel preheat furnace (number T-12), not using hydrogen scavenger, operating at a maximum process weight rate of 200 lbs/hr of metal (All particulate emissions (PE), carbon monoxide emissions (CO), total organic compound emissions (TOC), nitrogen oxide emissions (NOx), and sulfur dioxide emissions (SO2) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A)(3) (PTI #13-3010)	Visible particulate emissions (PE) in any exhaust gases shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 0.020 lb/mmBtu* of actual heat input, 0.372 lb/hr* and 1.63 tons/yr*. Sulfur dioxide (SO2) emissions shall not exceed 0.05 ton/yr*. Nitrogen oxides (NOx) emissions shall not exceed 11.4 tons/yr*. Carbon monoxide (CO) emissions shall not exceed 2.9 tons/yr. Total organic compound (TOC) emissions shall not exceed 0.23 ton/yr. This rule also includes compliance with the requirements of OAC rules 3745-31-05(A)(3), 3745-17-08(B), 3745-18-06(E), 3745-21-08(B), and 3745-23-06(B). See A.I.2.a and A.I.2.b below.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See A.I.2.c below.
	OAC rule 3745-23-06(B)	See A.I.2.d below.
	OAC rule 3745-18-06(E)	See A.I.2.e below.

2. Additional Terms and Conditions

2.a *The lb/mmBtu and lbs/hr emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

2.b One pound of TOC emissions is equivalent to one pound of VOC emissions.

2.c The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3010. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3010.

2.e The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each year this emissions unit is in operation:

a. heat input of P154, 18.60 million Btu/hour;
b. SO2 emission factor, 0.6 lb of SO2/10^6 CF;
c. gross heating value of natural gas, 1000 Btu/cubic foot (CF);
d. actual hourly SO2 emission rate, i.e., (a) X (b)/(c) = 0.0112 lb of SO2/hour;
e. hours of operation, hours/year;
f. conversion factor, 1 ton/2000 lbs;
g. actual annual SO2 emission rate, i.e., (d) X (e)/(f), ton of SO2/year;
h. NOx emission factor, 100 lbs of NO/10^6 CF;
i. actual hourly NOx emission rate, i.e., (a) X (h)/(c) = 1.86 lbs of NOx/hour;
j. actual annual NOx emission rate, i.e., (i) X (e)/(f), tons of NOx/year.
k. CO emission factor, 84 lbs of CO/10^6 CF;
l. actual hourly CO emission rate, i.e., (a) X (k)/(c) = 1.56 lbs of CO/hour;
m. actual annual CO emission rate, i.e., (l) X (e)/(f), tons of CO/year;
n. TOC emission factor, 11 lbs of TOC/10^6 CF;
o. actual hourly TOC emission rate, i.e., (a) X (n)/(c) = 0.205 lbs of TOC/hour; and
p. actual annual TOC emission rate, i.e., (o) X (e)/(f), tons of TOC/year.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit annual deviation (or excursion) reports that identify each year during which the actual annual SO2, NOx, CO, and/or TOC emission rates exceeded the limits in A.I.1. The reports shall be submitted to the Cleveland DAQ by January 31 of each year; and each report shall cover the previous calendar year. If no emission limitation deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviations occurred during the year.

3. The permittee shall submit annual reports that specify the total emissions of SO2, NOx, CO, and TOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE in any exhaust gases shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.
PE shall not exceed 0.372 lb/hr.

Applicable Compliance Method:
When burning natural gas, compliance with these emission limitations may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu
Actual PE, lbs/hr = (0.0019 lb of PE/mmBtu) X (18.60 mmBtu/hr) = 0.0353 lb of PE/hr

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:
PE shall not exceed 1.63 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

1.d Emission Limitation:
SO2 shall not exceed 0.05 ton/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

V. Testing Requirements (continued)

1.e Emission Limitation:
NOx shall not exceed 11.4 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

1.f Emission Limitation:
CO shall not exceed 2.9 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

1.g Emission Limitation:
TOC shall not exceed 0.23 ton/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in A.III.

VI. Miscellaneous Requirements

1. P154 was installed in 1996. P154 is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: X-Plant 4001 Hydraulic Press (P155)

Activity Description: X-Plant 4001 Hydraulic Press

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
X Plant, number 4001, a 4,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal	OAC rule 3745-31-05(A)(3) (PTI #13-3067)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2). Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 1.3 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. PE shall not exceed 5.65 tons per year. VOC shall not exceed 2.74 tons per year. See A.I.2.a below.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source shall be captured by a negative pressure hood and vented through a baghouse.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit on any day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed and the lubricant comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-2715	0.0009	4.40E-05	N
E-3146	0.0083	0.08	Y
E-2543A	0.0149	0.00394	Y
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146A	0.048	0.0064	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) X (c), tons of PE per year; and

e. the actual annual VOC emission rate, i.e., (b) X (c), tons of VOC per year.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

8. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in A.I.1 and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit annual reports that specify the total emissions of PE and VOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

9. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.e Emission Limitation:
The PE concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.3 lbs/hr (at 40,000 ACFM).

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above limitations may be based upon the monitoring and record keeping in A.III. A PE factor in lb PE/lb lubricant was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) X (7000 gr/lb) X (hr/60 minutes)/(air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM X (1 - moisture in air) X TCF X PCF

TCF = (460 + 70 degrees Fahrenheit)/(460 + air temperature, degrees Fahrenheit)
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

1.f Emission Limitation:
PE shall not exceed 5.65 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

1.g Emission Limitation:
VOC shall not exceed 2.74 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P104, P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P155 and the coated baghouse were installed in January 1996.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: X-Plant 4002 Hydraulic Press (P156)

Activity Description: X-Plant 4002 Hydraulic Press

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
X Plant, number 4002, a 4,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal	OAC rule 3745-31-05(A)(3) (PTI #13-3067)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2). Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 1.3 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. PE shall not exceed 5.65 tons per year. VOC shall not exceed 2.74 tons per year. See A.I.2.a below.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source shall be captured by a negative pressure hood and vented through a baghouse.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit on any day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed and the lubricant comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-2543A	0.0149	0.00394	Y
E-3146	0.0083	0.08	Y
FE4-332A	0.0023	0.0082	N
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146A	0.048	0.0064	Y
E-2715	0.0009	4.40E-05	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) X (c), tons of PE per year; and

e. the actual annual VOC emission rate, i.e., (b) X (c), tons of VOC per year.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

8. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in A.I.1 and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit annual reports that specify the total emissions of PE and VOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

9. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.e Emission Limitation:
The PE concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.3 lbs/hr (at 40,000 ACFM).

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above limitations may be based upon the monitoring and record keeping in A.III. A PE factor in lb PE/lb lubricant was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) X (7000 gr/lb) X (hr/60 minutes)/(air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM X (1 - moisture in air) X TCF X PCF

TCF = (460 + 70 degrees Fahrenheit)/(460 + air temperature, degrees Fahrenheit)
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

1.f Emission Limitation:
PE shall not exceed 5.65 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

1.g Emission Limitation:
VOC shall not exceed 2.74 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P104, P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P156 and the coated baghouse were installed in January 1996.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Y-Plant 5001 Hydraulic Press (P157)

Activity Description: Y-Plant 5001 Hydraulic Press

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Y Plant, number 5001, a 5,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal	OAC rule 3745-31-05(A)(3) (PTI #13-3149)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2). Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 1.4 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. PE shall not exceed 6.15 tons per year. VOC shall not exceed 2.74 tons per year. See A.I.2.a below.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source shall be captured by a negative pressure hood and vented through a baghouse.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit on any day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed and the lubricant comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-3146A	0.048	0.0064	Y
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146	0.0083	0.08	Y
E-2543	0.0083	0.08	Y
E-2543A	0.0149	0.00394	Y
E-2715	0.0009	4.40E-05	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) X (c), tons of PE per year; and

e. the actual annual VOC emission rate, i.e., (b) X (c), tons of VOC per year.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

8. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in A.I.1 and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit annual reports that specify the total emissions of PE and VOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

9. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.e Emission Limitation:
The PE concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.4 lbs/hr (at 40,000 ACFM).

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above limitations may be based upon the monitoring and record keeping in A.III. A PE factor in lb PE/lb lubricant was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) X (7000 gr/lb) X (hr/60 minutes)/(air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM X (1 - moisture in air) X TCF X PCF

TCF = (460 + 70 degrees Fahrenheit)/(460 + air temperature, degrees Fahrenheit)
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

1.f Emission Limitation:
PE shall not exceed 5.65 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

1.g Emission Limitation:
VOC shall not exceed 2.74 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P104, P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P157 and the coated baghouse were installed in September 1996.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Y-Plant 5002 Hydraulic Press (P158)

Activity Description: Y-Plant 5002 Hydraulic Press

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Y Plant, number 5002, a 5,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal	OAC rule 3745-31-05(A)(3) (PTI #13-3149)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2). Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 1.4 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. PE shall not exceed 6.15 tons per year. VOC shall not exceed 2.74 tons per year. See A.I.2.a below.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source shall be captured by a negative pressure hood and vented through a baghouse.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit on any day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed and the lubricant comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-2543A	0.0149	0.00394	Y
E-2543	0.0083	0.08	Y
E-2715	0.0009	4.40E-05	N
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146A	0.048	0.0064	Y
E-3146	0.0083	0.08	Y

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particualte emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

5. The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) X (c), tons of PE per year; and

e. the actual annual VOC emission rate, i.e., (b) X (c), tons of VOC per year.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

7. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

8. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in A.I.1 and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit annual reports that specify the total emissions of PE and VOC from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

9. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
Visible PE of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.e Emission Limitation:
The PE concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.4 lbs/hr (at 40,000 ACFM).

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above limitations may be based upon the monitoring and record keeping in A.III. A PE factor in lb PE/lb lubricant was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) X (7000 gr/lb) X (hr/60 minutes)/(air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM X (1 - moisture in air) X TCF X PCF

TCF = (460 + 70 degrees Fahrenheit)/(460 + air temperature, degrees Fahrenheit)
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

1.f Emission Limitation:
PE shall not exceed 5.65 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

1.g Emission Limitation:
VOC shall not exceed 2.74 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in A.III.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P104, P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P158 and the coated baghouse were installed in September 1996.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4601 B114 (P159)

Activity Description: 4601 Preheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 3.60 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4601), operating at a maximum process weight rate of 4,600 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO2) and nitrogen oxides emissions (NOx) are fugitive emissions.)	OAC rule 3745-31-05(A)(3) (PTI #13-3180)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B), 3745-21-08(B), 3745-23-06(B), and 3745-18-06(E). Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average. Fugitive dust emissions shall not exceed 0.29 lb/hr and 1.27 tons/yr. Nitrogen oxides (NOx) emissions shall not exceed 0.51 lb/hr and 2.23 tons/yr. See A.I.2.e below. Hydrogen fluoride (HF) emissions shall not exceed 0.251 lb/hr and 1.1 tons/yr.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)	See A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3180. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3180.

2.d The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

2.e The lb/hr and tons/year emission limitations for NOx are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with this emissions limitation.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the usage of scavenger in this emissions unit, in lbs;

b. the actual PE generated by this emissions unit due to the usage of scavenger, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ;

d. the actual average hourly scavenger usage, i.e.,(a)/(c);

e. the actual average PE rate due to the usage of scavenger, in lbs PE/hr, i.e., (b)/(c),

f. the actual hourly PE rate from the combustion of natural gas, i.e., (3.6 mmBtu/hr) X (1.9 lbs PE/mmCF**)/(1000 Btu/CF) = 0.00684 lb PE/hr;

g. the combined actual average hourly PE rate, in lbs/hr, i.e., (e) + (f); generated by this emissions unit as determined in section A.V.1.b.

h. the actual hourly NOx emission rate, i.e., (3.6 mmBtu/hr) X (100 lbs NOx/mmCF**)/(1000 Btu/CF) = 0.36 lb NOx/hr;

i. the actual HF generated by this emissions unit, i.e., (a) x 0.1908 lb of HF/lb of scavenger*, in lbs of HF; and

j. the actual average hourly HF emissions generated by this emissions unit, in lbs/hr, i.e., (i)/(c).

*This emission factor is based on prior emission testing and may be updated based on additional emission tests performed in accordance with A.V.2.

**This emission factor was obtained from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates (1.9 lbs PE/mmCF) and for NOx (100 lbs NOx/mmCF) in natural gas combustion.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (or excursion) reports that identify each month during which the actual average hourly fugitive dust and/or HF emission rates, in lbs/hr, exceeded the limits in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Fugitive dust emissions shall not exceed 0.29 lb/hr.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in A.III.

1.c Emission Limitation:
HF emissions shall not exceed 0.251 lb/hr.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in A.III.

1.d Emission Limitation:
Fugitive dust emissions shall not exceed 1.27 tons/year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping requirements in A.III. and the following calculation:
[(hrs of operation/yr) X (A.III.2.e + A.III.2.f)]/(2000 lbs/ton)

1.e Emission Limitation:
NOx shall not exceed 0.51 lb/hr and 2.23 tons/year.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in A.III.

As long as compliance with the hourly limit is maintained, compliance with the annual limit shall be ensured. The annual limitation was calculated by multiplying the hourly limit by 8760 and then dividing by 2000.

V. Testing Requirements (continued)

1.f Emission Limitation:
HF shall not exceed 1.1 tons/year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping requirements in A.III. and the following calculation:
(Sum of A.III.2.i for 12 months)/(2000 lbs/ton)

As long as compliance with the hourly limit is maintained, compliance with the annual limit shall be ensured. The annual limitation was calculated by multiplying the hourly limit by 8760 and then dividing by 2000.

VI. Miscellaneous Requirements

1. P159 was installed in 1997 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Inconel preheat furnace (P162)

Activity Description: 27 mmBtu/hr direct gas-fired Inconel preheat furnace - Bldg. 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 27.0 mmBtu/hr, direct heat, natural gas-fired Inconel preheat furnace not using hydrogen scavenger, operating at a maximum process weight rate of 2,609 lbs/load of metal (Particulate emissions (PE), carbon monoxide emissions (CO), volatile organic compound emissions (VOC), nitrogen oxides emissions (NOx), and sulfur dioxide emissions (SO2) are exhausted through a vertical stack.)	OAC rule 3745-31-05(A)(3) (PTI #13-3811)	Visible particulate emissions (PE) from any stack shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 0.41 lb/hr* and 1.80 tons per year*. CO emissions shall not exceed 4.54 lbs/hr* and 19.87 tons per year*. VOC emissions shall not exceed 0.30 lb/hr* and 1.31 tons per year*. NOx emissions shall not exceed 5.40 lbs/hr* and 23.65 tons per year*. The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-06(E), 3745-21-08(B), and 3745-23-06(B). *The pounds/hour and tons/year emission limitations are equal to or greater than the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.
	OAC rule 3745-18-06(E)	See A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3811. On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install #13-3811.

2.c The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitations:
Emissions from the combustion of natural gas shall not exceed:
0.41 pound PE/hour, 1.80 ton PE/year
0.30 pound VOC/hour, 1.31 ton VOC/year
5.40 pounds NOx/hour; 23.65 tons NOx/year
4.54 pounds CO/hour, 19.87 tons CO/year

Applicable Compliance Methods:
Compliance with the hourly emission limitations may be determined by multiplying the emissions unit's maximum hourly natural gas usage (27,000 ft^3/hour) by the appropriate emission factor for each pollutant from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition or the most recent edition of AP-42, Table 1.4-2 (7/98) for natural gas (pounds/MMft3).

The annual limitations were established by multiplying the hourly limitations by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual PE limitation is ensured while compliance with the hourly PE limitation is maintained.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with the USEPA Test Methods 1 through 4 for gas flow characteristics, Test Method 5 and the procedures specified in OAC rule 3745-17-03(B)(10) for PE, Test Method 7 for nitrogen oxide emissions, Test Method 10 for carbon monoxide emissions, and Test Methods 18, 25, 25A, or 25B for VOC emissions of 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. P162 was installed in September 2001. P162 is a stack source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Small Wheelabrator Shotblaster (P163)

Activity Description: Small Wheelabrator Shotblaster - Bldg. 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Small Wheelabrator shotblaster which uses steel shot to clean and de-bur aircraft metal parts, the maximum process weight rate is 10,000 lbs per hour of metal (Particulate emissions (PE) are controlled by a baghouse dust collector.)	OAC rule 3745-31-05(A)(3) (PTI #13-3890)	Visible PE from any stack shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 0.015 grain/dry standard cubic foot (gr/DSCF) of exhaust gas, 0.437 lb/hr and 1.19 tons/yr.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and corrective actions for each day the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain copies of all the stack test results used to develop each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

3. The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) X (b)/(c).

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the baghouse serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above in A.I.1.

The quarterly deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 5 % opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE shall not exceed 0.015 grain per DSCF of exhaust gas, 0.437 lb/hr and 1.91 tons/yr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission rate may be demonstrated by multiplying the allowable lbs/hr emission rate by 8,760 hours/year, and then by the dividing by 1.0 ton/2,000 lbs.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P086, P108, and P163 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P086, P108, and P163 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions in A.I.1. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

V. Testing Requirements (continued)

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P163 was modified in February 2002 to add a new stack. The baghouse was installed in January 1960.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 5082 Blocking Press (P164)

Activity Description: 5082 Blocking Press - Bldg. 112

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112, 5000 tons blocking press 5082 for production of metal forgings, with a maximum batch process weight rate of 12,500 lbs/hr	OAC rule 3745-31-05(A)(3) (PTI 13-3882)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2). Organic compound (OC) emissions shall not exceed 7.3 tons/yr. PE shall not exceed 0.03 grain per dry standard cubic foot (gr/DSCF) of exhaust gas, 0.87 lb/hr which is based on 3,363 DSCFM and 3.79 tons/yr.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the OC emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.a below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.b below.

2. Additional Terms and Conditions

2.a The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.b For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.c As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.c; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors. The following current OC and particulate emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)
Lubricant E-3241	0.0011	0.0078
Lubricant FE4-329A	0.0308	0.0144

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the actual average hourly PE rate exceeded 0.87 lb/hr and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitations:
for the lubricants that do come in contact with a flame, the OC emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.c Emission Limitations:
for the lubricants that do come in contact with a flame, the OC emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.d Emission Limitations:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
Compliance with this PE limitation shall be demonstrated by multiplying the short term lbs/hr emission rate by the annual operating hours of the emissions unit and then dividing by the 2000 lbs/ton conversion factor.

V. Testing Requirements (continued)

1.e Emission Limitation:
PE shall not exceed 0.03 grain per DSCF of exhaust gas, 0.87 lb/hr and 3.79 TPY

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be demonstrated using engineering calculations based on the amount and type of lubricant used and emission factors that have been generated from stack testing.

Actual PE rate, lbs/hr = GRLD X AVFR X TCF X MCF X PCF X (60 minutes/hr)/(7000 grains/lb)
TCF = (460 + 70 degrees, Fahrenheit)/(460 + air temperature, degrees Fahrenheit), deg. F/deg. F
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)
MCF = (1 - moisture in air), ft^3 dry air/ft^3 air

AVFR = air volume flow rate, ACFM
ACFM = actual cubic foot per minute, ft^3/min
GRLD = grain loading concentration, grains/ft^3
MCF = stack gas moisture correction factor
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor,

Or compliance may be determined pursuant to the monitoring and record keeping in section A.III.

As long as compliance with the hourly limit is maintained, compliance with the annual limit shall be ensured. The annual limitation was calculated by multiplying the hourly limit by 8760 and then dividing by 2000.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P164 and P165 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P164 and P165.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 3,594 ACFM. P164 was installed in September 2001.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112, 5000 ton blocking press 5082 for production of metal forgings, with a maximum batch process weight rate of 12,500 lbs/hr (Particulate emissions (PE) and organic compounds emissions (OC) are exhausted through a vertical stack.)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Air Toxic Policy Clarifying Language

The permit to install for this emissions unit (P164) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol, 2-amino, C2H7NO, 141-43-5

TLV (mg/m3): 7.49

Maximum Hourly Emission Rate (lbs/hr): 2.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 100

MAGLC (ug/m3): 178

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 3,594 ACFM. P164 was installed in September 2001.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 5083 Blocking Press (P165)

Activity Description: 5083 Blocking Press - Bldg. 112

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112, 5000 tons blocking press 5083 for production of metal forgings, with a maximum batch process weight rate of 12,500 lbs/hr	OAC rule 3745-31-05(A)(3) (PTI 13-3882)	This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2). Organic compound (OC) emissions shall not exceed 7.3 tons/yr. PE shall not exceed 0.03 grain per dry standard cubic foot (gr/DSCF) of exhaust gas, 1.16 lbs/hr which is based on 3,363 DSCFM and 5.07 tons/yr.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the OC emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.a below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.b below.

2. Additional Terms and Conditions

2.a The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.b For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.c As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.c; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors. The following current OC and particulate emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)
Lubricant E-3241	0.0011	0.0078
Lubricant FE4-329A	0.0308	0.0144

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. For all the days when the record keeping in A.III.2 was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the actual average hourly PE rate exceeded 0.87 lb/hr and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

V. Testing Requirements (continued)

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitations:
for the lubricants that do come in contact with a flame, the OC emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.c Emission Limitations:
for the lubricants that do come in contact with a flame, the OC emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.d Emission Limitations:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
Compliance with this PE limitation shall be demonstrated by multiplying the short term lbs/hr emission rate by the annual operating hours of the emissions unit and then dividing by the 2000 lbs/ton conversion factor.

V. Testing Requirements (continued)

1.e Emission Limitation:
PE shall not exceed 0.03 grain per DSCF of exhaust gas, 1.16 lbs/hr and 5.07 TPY

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be demonstrated using engineering calculations based on the amount and type of lubricant used and emission factors that have been generated from stack testing.

Actual PE rate, lbs/hr = GRLD X AVFR X TCF X MCF X PCF X (60 minutes/hr)/(7000 grains/lb)
TCF = (460 + 70 degrees, Fahrenheit)/(460 + air temperature, degrees Fahrenheit), deg. F/deg. F
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)
MCF = (1 - moisture in air), ft^3 dry air/ft^3 air

AVFR = air volume flow rate, ACFM
ACFM = actual cubic foot per minute, ft^3/min
GRLD = grain loading concentration, grains/ft^3
MCF = stack gas moisture correction factor
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor,

Or compliance may be determined pursuant to the monitoring and record keeping in section A.III.

As long as compliance with the hourly limit is maintained, compliance with the annual limit shall be ensured. The annual limitation was calculated by multiplying the hourly limit by 8760 and then dividing by 2000.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P164 and P165 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P164 and P165.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 4,900 ACFM. P165 was installed in September 2001.

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 112, 5000 ton blocking press 5082 for production of metal forgings, with a maximum batch process weight rate of 12,500 lbs/hr (Particulate emissions (PE) and organic compounds emissions (OC) are exhausted through a vertical stack.)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. Air Toxic Policy Clarifying Language

The permit to install for this emissions unit (P164) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol, 2-amino, C2H7NO, 141-43-5

TLV (mg/m3): 7.49

Maximum Hourly Emission Rate (lbs/hr): 2.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 100

MAGLC (ug/m3): 178

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

1. Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 3,594 ACFM. P164 was installed in September 2001.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #13 Soaker (P402)

Activity Description: No. 13 Soaker Furnace - Bldg 150 (part of P102)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 16.75 mmBtu/hr, indirect heat, natural gas-fired soaker furnace (number 13), with a maximum process weight rate of 75,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are controlled by a reverse air baghouse.)	OAC rule 3745-17-10(B)(1)	PE from the gas burner flue gas exhaust shall not exceed 0.020 lb/MMBtu of actual heat input.
	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-17-11(B)	.551 lb/hr* (based upon Table I) from the control device

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible emissions of fugitive dust.

2.b Because this emission unit is fired only with natural gas, there is no applicable SO2 emission limitation from Chapter 3745-18.

2. Additional Terms and Conditions (continued)

2.c *If the permittee can demonstrate through emission testing (using USEPA-approved emission test methods) that significant quantities, above background levels, of AlF3 and MgF3 are present in the stack exhaust gases in the form of measurable particulate emissions (PE), then the allowable emission rate for this emissions unit shall be limited to 10 pounds of PE per hour. (If this demonstration can be made, and the uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour, Figure II of OAC rule 3745-17-11 would not apply pursuant to OAC rule 3745-17-11(A)(2)(a)(ii). In addition, based on Table I of OAC rule 3745-17-11 and a process weight rate of 75,008 lbs/hr, the allowable PE limitation (i.e., 41.9 lbs/hr) is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.)

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with A.V.2 below.

3. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

V. Testing Requirements (continued)

1.c Emission Limitation:
PE shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
.551 lb/hr of PE

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in A.III. A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P055, P102, and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, and P402 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in A.I.1 for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

V. Testing Requirements (continued)

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P402 was installed in 1963. The reverse air baghouse was installed in 1980.

P402 is a stack and a fugitive dust source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 2504 Mechanical Press (P429)

Activity Description: 2504 Mechanical Press - water based lubes

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, number 2504, a 2,500 ton mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 4,500 lbs/hr of metal	OAC rule 3745-17-11(B)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.b below.
	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See A.I.2.c below.
	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See A.I.2.d below.

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

2.b The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. The collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The Ohio EPA has determined that OAC rule 3745-21-07(G)(1) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(G)(1) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(e) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

2.d For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

2.e As specified in OAC rule 3745-21-07(G)(9)(c), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(G):

i. the volatile content of the lubricant consists only of water and liquid organic material;
ii. the liquid organic material comprises not more than twenty per cent of said volatile content; and
iii. the volatile content is not a photochemically reactive material.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. for each lubricant employed, documentation as to whether or not:
i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);
ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(G) as specified in A.I.2.e; and
iii. the lubricant comes in contact with a flame.

c. the amount of each lubricant employed, in pounds;

d. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total number of hours the emissions unit was in operation; and

g. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

III. Monitoring and/or Record Keeping Requirements (continued)

2. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(1) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

3. On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

4. The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	-----	0.3753	N
PL-592	-----	0.296	N

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

6. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

7. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

2. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

3. The permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

5. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

6. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

IV. Reporting Requirements (continued)

7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

8. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see A.V.2 below).

1.b Emission Limitations:
for the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions

for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

1.c Emission Limitation:
less than 10 lbs/hr of PE

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in section A.III.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

1.d Emission Limitation:
Visible PE from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.e Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P017, P018, P019, P129, and P429 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P017, P018, P019, P129, and P429.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in A.I.1. Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

VI. Miscellaneous Requirements

1. P429 and the stack were installed in 1963.

VI. Miscellaneous Requirements (continued)

2. The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Torch Pit #2 (P432)

Activity Description: Acetylene Arc System - Torch Pit No. 2 (West) - Bldg 206 (part of P032)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, acetylene arc cutting system - torch pit number 2 (west) (Particulate emissions (PE) are controlled by a positive pressure, pulse-jet baghouse.)	OAC rule 3745-31-05(A)(3) (PTI #13-2232)	See A.I.2.a below.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a PE shall not exceed 0.01 gr/DSCF and 3.43 lbs/hr, visible PE shall not exceed 5% opacity, and there shall be no objectionable odors in any exhaust gases. (DSCF is dry standard cubic foot and gr is grain or grains.)

PE shall not exceed 15 tons per year.
PM10 shall not exceed 13.5 tons per year.
PM10 is defined in OAC rule 3745-17-01(B)(26).

2.b All PE from this emissions unit shall be vented to the baghouse.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record, for the control system, the downtime of the capture (collection) system, control device, and monitoring equipment and the corrective actions for each day the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cut, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cut;

c. the operating hours for this emissions unit; and

d. the actual average PE rate for this emissions unit, in lbs/hr; i.e., (a) X (b) X (1 - the fractional control efficiency for the control device)/(c).

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

4. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the baghouse serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which the actual average hourly PE rate exceeded 3.43 lbs/hr, and the actual average hourly PE rate for each such month.

2. The permittee shall submit the quarterly deviation (excursion) reports in accordance with General Term and Condition A.1.c.ii of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the dust collector baghouse stack shall not exceed 5% opacity.

Applicable Compliance Method:
If required, compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitations:
PE shall not exceed 0.01 grains/DSCF.
PE shall not exceed 3.43 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitations:
PE shall not exceed 15 tons per year.
PM10 shall not exceed 13.5 tons per year.

Applicable Compliance Method:
Compliance with the annual limitations shall be based upon the monitoring and record keeping requirements in A.III.3.

As long as compliance with the hourly PE limit is maintained, compliance with the annual limit shall be ensured. The annual limitation was calculated by multiplying the hourly limit by 8760 and then dividing by 2000.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P032 and P432 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be within 12 months of permit issuance for one of the following identical emissions units P032 and P432.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE in A.I.1.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 22, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

VI. Miscellaneous Requirements

1. P432 and the baghouse were installed in 1991.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 1004 B101 (Z007)

Activity Description: 1004 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
DELETED FROM SERVICE Building 101, 0.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 1004), operating at a maximum process weight rate of 1,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) and sulfur dioxide emissions (SO2) are exhausted through a vertical stack.)	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible particulate emissions of fugitive dust.

2.b No process weight rate can be determined because the sulfur dioxide emissions are generated solely from the combustion of natural gas. Therefore, there is no applicable sulfur dioxide emission limitation from this rule.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible fugitive particulate emissions from the area immediately above the capture system serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

a. for 90 consecutive days this emissions unit's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are documented. The permittee may again reduce the frequency of visual observations from daily to weekly after obtaining 90 consecutive days of observations with no visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the area immediately above the capture system serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z007 was installed in April 1942 and is a stack and a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 2007 B101 (Z008)

Activity Description: 2007 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 0.25 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2007), operating at a maximum process weight rate of 2,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z008 was installed in March 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 2502 B101 (Z009)

Activity Description: 2502 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 0.50 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2502), operating at a maximum process weight rate of 2,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z009 was installed in January 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4502 B101 (Z012)

Activity Description: 4502 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4502), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) and sulfur dioxide emissions (SO2) are exhausted through a vertical stack.)	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven; and maintaining the furnace or oven under negative pressure to minimize or eliminate visible particulate emissions of fugitive dust.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible fugitive particulate emissions from the area immediately above the capture system serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

4. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

a. for 90 consecutive days this emissions unit's visual observations indicate no visible emissions; and

b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are documented. The permittee may again reduce the frequency of visual observations from daily to weekly after obtaining 90 consecutive days of observations with no visible emissions.

5. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the area immediately above the capture system serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible PE from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible PE observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z012 was installed in June 1941 and is a stack and a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4504 B101 (Z013)

Activity Description: 4504 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1.86 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4504), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z013 was installed in September 1943 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4505 B101 (Z014)

Activity Description: 4505 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 0.45 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4505), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z014 was installed in April 1942 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4506 B111 (Z015)

Activity Description: 4506 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4506), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z015 was installed in January 1943 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 6002 B101 (Z020)

Activity Description: 6002 Furnace - Bldg 101

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 101, 1.70 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 6002), operating at a maximum process weight rate of 6,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z020 was installed in November 1939 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 12001 B111 (Z022)

Activity Description: 12001 Furnace - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 12.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12001), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z022 was installed in September 1952 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 12002 B111 (Z023)

Activity Description: 12002 Furnace - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 2.40 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12002), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z023 was installed in September 1952 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 12003 B111 (Z024)

Activity Description: 12003 Furnace - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 12.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12003), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z024 was installed in September 1952 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 6003 B111 (Z025)

Activity Description: 6003 Furnace - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 1.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 6003), operating at a maximum process weight rate of 6,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z025 was installed in December 1967 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 6004 B111 (Z026)

Activity Description: 6004 Furnace - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 1.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 6004), operating at a maximum process weight rate of 6,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z026 was installed in December 1967 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn G-1 B111 (Z027)

Activity Description: 12,000 Lb Reheat Furnace G-1 - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 3.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number G-1), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z027 was installed in July 1953 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn G-2 B111 (Z028)

Activity Description: 12,000 Lb Reheat Furnace G-2 - Bldg 111

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 111, 3.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number G-2), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z028 was installed in July 1953 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 2002 B114 (Z031)

Activity Description: 2002 Preheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 0.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2002), operating at a maximum process weight rate of 2,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z031 was installed in February 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 2503 B150 (Z033)

Activity Description: 2503 Preheat Furnace - Bldg 150

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 150, 0.25 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2503), operating at a maximum process weight rate of 2,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z033 was installed in February 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4509 B114 (Z034)

Activity Description: 4509 Reheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 8.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4509), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z034 was installed in September 1942 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4513 B114 (Z035)

Activity Description: 4513 Reheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 1.50 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4513), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z035 was installed in January 1943 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4518 B114 (Z036)

Activity Description: 4518 Reheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 14.40 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4518), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z036 was installed in January 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn 4519 B114 (Z037)

Activity Description: 4519 Reheat Furnace - Bldg 114

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 114, 14.40 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4519), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z037 was installed in October 1941 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn R&S #1 B206 (Z041)

Activity Description: R&S Reheat Furnace No. 1 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 2.32 mmBtu/hr, direct heat, natural gas-fired preheat furnace (R & S reheat furnace number 1), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z041 was installed in February 1955 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn R&S #3 B206 (Z043)

Activity Description: R&S Reheat Furnace No. 3 - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 1.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (R & S reheat furnace number 3), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z043 was installed in February 1955 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #4 Salem (Z044)

Activity Description: No. 4 Salem Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 15.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4 Salem), operating at a maximum process weight rate of 16,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z044 was installed in September 1969 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn #5 Salem (Z045)

Activity Description: No. 5 Salem Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 13.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 5 Salem), operating at a maximum process weight rate of 16,000 lbs/hr of metal and 8 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z045 was installed in September 1969 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Furn T-10 B206 (Z051)

Activity Description: T-10 Furnace - Bldg 206

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Building 206, 13.98 mmBtu/hr, direct heat, natural gas-fired titanium preheat furnace (number T-10), not using hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO2) are fugitive emissions.)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.a below.
	OAC rule 3745-18-06(E)	See A.I.2.b below.

2. Additional Terms and Conditions

2.a No control measures are required for this emissions unit.

2.b The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident;
c. any corrective actions taken to eliminate the visible emissions;
d. whether the emissions are representative of normal operations; and
e. if the emissions are not representative of normal operations, the cause of the abnormal emissions.

3. The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

1.a Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3) shall be used to demonstrate compliance. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

VI. Miscellaneous Requirements

1. Z051 was installed in February 1955 and is a fugitive source.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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