



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

12/24/01

**CERTIFIED MAIL**

**RE: Preliminary Proposed Title V  
Chapter 3745-77 permit**

03-72-02-0143  
Whirlpool Corporation - Clyde Division  
Gary F. Jaeger  
119 Birdseye St.  
Clyde, OH 43410-1397

Dear Gary F. Jaeger:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on (not issued). The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. **Please submit, in writing, any comments you may have within fourteen (14) days from your receipt of this letter to:**

Ohio Environmental Protection Agency  
Jim Orlemann, Manager, Engineering Section  
Division of Air Pollution Control  
P.O.Box 1049  
Columbus, OH 43216-1049

and

Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419) 352-8461

Also, if you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within fourteen (14) days of your receipt of this letter, we will forward the proposed permit to USEPA for approval. All comments received will be carefully considered before proceeding to the proposed permit.

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Northwest District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Issue Date: 12/24/01

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: 03-72-02-0143 to: Whirlpool Corporation - Clyde Division 119 Birdseye St. Clyde, OH 43410-1397

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units B002 through B009, K005 through K011, and N001 through N004, P021 through P025.

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.

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

Northwest District Office

347 North Dunbridge Road  
Bowling Green, OH 43402  
(419) 352-8461

OHIO ENVIRONMENTAL PROTECTION AGENCY

---

Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Section

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, 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.
- 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written 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.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by

January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- 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 are true, accurate, and complete.

## **2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to 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"), the permittee shall comply with the requirement to register such a plan.

## **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.

## **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.

## **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. 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.

## **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.

## **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.

## **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.

## **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 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.

## **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.

## **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 appropriate Ohio EPA District Office or local air agency 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.

### **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.

#### **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).

#### **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.

#### **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, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). 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; and
- 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.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

#### **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.

#### **18. Insignificant Activity**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

## **B. State Only Enforceable Section**

### **1. 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.

### **2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) 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. 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.)

### **3. 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.

### **4. 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.

**5. 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).

**6. 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.

**7. 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.

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

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.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

None

### B. State Only Enforceable Section

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

P018 - #1 organic silk screen system, P026 - #2 organic silk screen system, T011 - Porcelain fuel oil tank, Z001 - North generator, Z002 - West generator, Z003 - East generator, Z004 - Porcelain area work benches, Z005 - Old top coat prep area, Z006 - New top coat prep area, Z007 - Paint department sanding booths, Z008 - Printing, Z009 - East fuel oil tank, Z010 - west fuel oil tank, Z011 - Machine shop sanding booth, Z012 - Jeep painting, Z015 - <10 mmBtu/hr air makeup unit, Z016 - <10 mmBtu/hr air makeup unit, Z017 - <10 mmBtu/hr air makeup unit, Z018 - <10 mmBtu/hr air makeup unit, Z019 - <10 mmBtu/hr air makeup unit, Z020 - <10 mmBtu/hr air makeup unit, Z021 - <10 mmBtu/hr air makeup unit, Z022 - <10 mmBtu/hr air makeup unit, Z023 - <10 mmBtu/hr air makeup unit, Z024 - <10 mmBtu/hr air makeup unit, Z025 - Torit booth (hanger banger), Z026 - Wet porcelain ground coat flatware spray operation, Z027 - Wet porcelain roundware drying oven, Z028 - Wet porcelain roundware drying oven, Z029 - Wet porcelain flatware drying oven, Z030 - Powder coat double-sided sanding booths and finesse booth, Z031 - 119 wet porcelain reinforce and stipple roundware spray booth, Z032 - 111 wet porcelain reinforce and stipple roundware spray booth and Z033 - 4.5 mmBtu/hr porcelain dryer.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a Permit to Install (PTI) for the emissions unit.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler 1-2 (B002)

**Activity Description:** Natural gas fired boiler with fuel oil serving as backup.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
40 mmBtu/hr, natural gas and/or #2 fuel oil-fired boiler (boiler 1-2)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

- The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs sulfur dioxide/mmBtu of actual heat input.
- The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

- For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

- For each day during which the permittee burns a fuel other than natural gas and/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. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods 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: When firing natural gas, the permittee may determine compliance with the limitation above by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil and natural gas, the permittee may determine with the limitation compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Method 6 of 40 CFR, Part 60, Appendix A.

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Boiler 1-1 (B003)

**Activity Description:** Natural gas fired boiler with fuel oil serving as backup.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
60 mmBtu/hr, natural gas and/or #2 fuel oil-fired boiler (boiler 1-1)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO <sub>2</sub> /mmBtu of actual heat input

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs sulfur dioxide/mmBtu of actual heat input.
- The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

- For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

- For each day during which the permittee burns a fuel other than natural gas and/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. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods 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: When firing natural gas, the permittee may determine compliance with the limitation above by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil and natural gas, the permittee may determine with the limitation compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Method 6 of 40 CFR, Part 60, Appendix A.

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Boiler 1-3 (B004)

**Activity Description:** Natural gas fired boiler with fuel oil serving as backup.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
76.5 mmBtu/hr, natural gas and/or #2 fuel oil-fired boiler (boiler 1-3)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

- The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs sulfur dioxide/mmBtu of actual heat input.
- The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

- For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

- For each day during which the permittee burns a fuel other than natural gas and/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. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods 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: When firing natural gas, the permittee may determine compliance with the limitation above by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil and natural gas, the permittee may determine with the limitation compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Method 6 of 40 CFR, Part 60, Appendix A.

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Powdered Porcelain Flatware Furnace (B005)

**Activity Description:** Porcelain coated steel parts are conveyed into this furnace for firing. The glass frit is melted into a smooth glass finish. The furnace heat source is an indirectly fired operation.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 mmBtu/hr, natural gas/liquified petroleum gas (LPG)-indirect fired furnace (powdered porcelain flatware furnace)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.b.
	OAC rule 3745-31-05 (PTI #03-11288)	1.6 lbs nitrogen oxides (NOx)/hr and 7.0 TPY NOx
		0.24 lb PE/hr and 1.05 TPY PE
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-(10)(B), 3745-21-08(B) and 3745-23-06(B).

##### 2. Additional Terms and Conditions

- 2.a Since natural gas and LPG are the only fuels fired in this emissions unit, no SO2 emission limitation is established by OAC Chapter 3745-18 for this emissions unit.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install # 03-11288.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG 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 and/or LPG, the permittee shall maintain a record of the type 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 and/or LPG 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

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

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods 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: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

When firing LPG, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 1.6 lbs NOx/hr, 7.0 TPY NOx

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

When firing LPG, the permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 21 lbs NOx/1000 gallons of LPG used.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

## **V. Testing Requirements (continued)**

### **1.d** Emission Limitation: 0.24 lb PE/hr, 1.05 TPY PE

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft.

When firing LPG, the permittee may determine compliance with the limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

If required, the permittee shall demonstrate compliance with the hourly PE limitation pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Porcelain 119 Flatware Furnace (B006)

**Activity Description:** Wet and/or powdered porcelain parts are conveyed to the 119 furnace for firing. The furnace heat source is an indirectly fired operation.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
18 mmBtu/hr, natural gas/liquified petroleum gas (LPG)-indirect fired furnace (porcelain 119 flatware furnace)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.b.
	OAC rule 3745-31-05 (PTI #03-7624)	4.44 lbs PE/day
		25.9 lbs nitrogen oxides (NOx)/day
		10.4 lbs carbon monoxide (CO)/day
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-(10)(B), 3745-21-08(B) and 3745-23-06(B).

##### 2. Additional Terms and Conditions

- 2.a Since natural gas and LPG are the only fuels fired in this emissions unit, no SO2 emission limitation is established by OAC Chapter 3745-18 for this emissions unit.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install # 03-7624.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG 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 and/or LPG, the permittee shall maintain a record of the type 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 and/or LPG 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

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

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the procedures and methods 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: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

When firing LPG, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 25.9 lbs NOx/day

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the daily allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft, and then multiplying by 24.

When firing LPG, the permittee may determine compliance with the daily allowable NOx emission limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 21 lbs NOx/1000 gallons of LPG used, and then multiplying by 24.

- 1.d Emission Limitation: 4.44 lbs PE/day

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then multiplying by 24.

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then multiplying by 24.

- 1.e Emission Limitation: 10.4 lbs CO/day

Applicable Compliance Method: When firing natural gas, compliance with the daily CO emission limitation may be determined by multiplying the AP-42, section 1.4 emission factor [84 lbs CO/mm cu. ft. of natural gas] (revised 7/98) by the maximum hourly natural gas burning capacity of the emissions unit (mm cu. ft./hr), and then multiplying by 24.

When firing LPG, the permittee may determine compliance with determine the daily CO emission limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 3.6 lb CO/1000 gallons of LPG used, and then multiplying by 24.

Facility Name: **Whirlpool Corporation - Clyde Division**  
Facility ID: **03-72-02-0143**  
Emissions Unit: **Porcelain 119 Flatware Furnace (B006)**

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Porcelain 113 Roundware Furnace (B007)

**Activity Description:** Wet porcelain, stipple coated, and powdered porcelain parts are conveyed to the 113 furnace for firing. The furnace heat source is an indirectly fired operation.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
15.5 mmBtu/hr, natural gas/liquified petroleum gas (LPG)-indirect fired furnace (porcelain 113 roundware furnace)	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.b.
	OAC rule 3745-31-05 (PTI #03-6632)	0.89 lb nitrogen oxides (NOx)/hr  0.16 lb PE/hr
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-(10)(B), 3745-21-08(B) and 3745-23-06(B).

##### 2. Additional Terms and Conditions

- 2.a Since natural gas and LPG are the only fuels fired in this emissions unit, no SO2 emission limitation is established by OAC Chapter 3745-18 for this emissions unit.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 03-6632.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG 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 and/or LPG, the permittee shall maintain a record of the type 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 and/or LPG 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

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

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the procedures and methods 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: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the emissions unit (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1.c Emission Limitation: 0.89 lb NOx/hr

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

When firing LPG, the permittee may determine compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 21 lbs NOx/1000 gallons of LPG used.

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

- 1.d Emission Limitation: 0.16 lb PE/hr

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft.

When firing LPG, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used.

If required, the permittee shall demonstrate compliance with the hourly PE limitation pursuant to Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

#### VI. Miscellaneous Requirements

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** 10 MMBtu/hour Air Makeup Unit (B008)

**Activity Description:** Air makeup units for heating fresh air entering the building and space heaters.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) air makeup unit	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb PE/hr
	OAC rule 3745-18-06(E)	exempt, pursuant to OAC rule 3745-18-06(C) [See A.I.2.a.]

##### 2. Additional Terms and Conditions

- 2.a The process weight rate of this emissions unit is less than 1000 pounds/hr because natural gas and LPG are the only fuels fired in this emissions unit.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG 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 and/or LPG, the permittee shall maintain a record of the type 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 and/or LPG 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation: 0.551 lb PE/hr

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft.

When firing LPG, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used.

If required, the permittee shall demonstrate compliance with the hourly PE limitation pursuant to the methods specified in OAC rule 3745-17-03(B)(10).

**VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** 15 MMBtu/hour Air Makeup Unit (B009)

**Activity Description:** Air makeup units for heating fresh air entering the building and space heaters.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
15 mmBtu/hr, natural gas/liquified petroleum gas (LPG) air makeup unit	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb PE/hr
	OAC rule 3745-18-06(E)	exempt, pursuant to OAC rule 3745-18-06(C) [See A.I.2.a.]

##### 2. Additional Terms and Conditions

- 2.a The process weight rate of this emissions unit is less than 1000 pounds/hr because natural gas and LPG are the only fuels fired in this emissions unit.

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG 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 and/or LPG, the permittee shall maintain a record of the type 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 and/or LPG 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation: 0.551 lb PE/hr

Applicable Compliance Method: When firing natural gas, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft.

When firing LPG, the permittee may determine compliance with the PE limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used.

If required, the permittee shall demonstrate compliance with the hourly PE limitation pursuant to the methods specified in OAC rule 3745-17-03(B)(10).

**VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** #1 E-Coat Paint System (K005)

**Activity Description:** Prepped parts are conveyed through an electrostatic paint bath for coating and then rinsed three times. Following the #1 E-coat process, painted parts are sent to the #1 E-Coat cure oven.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
#1 e-coat paint system [cathodic e-coat bath with rinse stages and 10 mmBtu/hr natural gas/liquified petroleum gas (LPG) cure oven]	OAC rule 3745-21-09(K)	2.8 lbs pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents (See A.I.2.a.)
	OAC rule 3745-31-05 (PTI #03-1758)	The total VOC emissions from emissions units K005, K007, K008, K009, K010 and K011, combined, shall not exceed 460 tons per year.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(K).

##### 2. Additional Terms and Conditions

- 2.a The VOC contents of the coatings employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 2.8 lbs VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents. To ensure compliance with this VOC content limitation, each material, except for solvents, added to the dip tank shall meet the limitation of 2.8 pounds of VOC per gallon of coating materials, excluding water and exempt solvents. On any day when solvents are added to the dip tank, the combination of all materials added on each such day shall meet the limitation of 2.8 pounds of VOC per gallon of materials, as a daily, volume-weighted average, excluding water and exempt solvents.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day for the electrocoating dip tank:
  - a. the name and identification number of each material added to the dip tank;
  - b. the VOC content, excluding water and exempt solvents, in pounds per gallon, of each material added to the dip tank;
  - c. the number of gallons of each material added to the dip tank, excluding water and exempt solvents; and
  - d. on the days when solvents are added to the dip tank, the daily, volume-weighted average VOC content of the combination of materials added to the dip tank, in pounds/gallon, excluding water and exempt solvents [calculated by summing (b x c) for all materials, divided by the total number of gallons, excluding water and exempt solvents, of all materials].
  
2. The permittee shall collect and record the following information for each month for emissions units K005, K007, K008, K009, K010 and K011, combined:
  - a. the name and identification number of each material employed;
  - b. the VOC content of each material employed, in pounds per gallon;
  - c. the volume, in gallons, of each material employed;
  - d. the emissions of VOC for each material employed (b x c), in pounds; and
  - e. the total emissions of VOC for all the materials employed (summation of d for all materials, divided by 2000), in tons.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of noncomplying coating materials (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
2. The permittee shall submit annual reports that summarize the actual annual VOC emissions for emissions units K005, K007, K008, K009, K010 and K01, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
2.8 lbs of VOC/gallon of coating, excluding water and exempt solvents  
2.8 lbs of VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvent (on the days when solvents are added to the dip tank)

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

The daily, volume-weighted average of all the materials added to the dip tank shall be calculated using the following equation:

$$\text{Daily volume-weighted average} = [\text{summation of } (G_i \times \text{VOC}_i)] / [\text{summation of } G_i] \text{ for } i = 1 \text{ to } n$$

where:

$$i = 1, 2, 3, \dots, n$$

$n$  = the total number of the different types of materials added to the dip tank for that day

$G_i$  = the number of gallons of material  $i$  (excluding water and exempt solvents) added to the dip tank for that day

$\text{VOC}_i$  = the VOC content of material  $i$ , in pounds/gallon of material, excluding water and exempt solvents

- 1.b** Emission Limitation: 460 tons/yr VOC

Applicable Compliance Method: Compliance shall be demonstrated based upon the record keeping requirements in section A.III of this permit and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

- 2.** Any determination of VOC content, solids content, or density of a coating material shall be based on the coating material as employed (as applied), including the addition of any thinner or viscosity reducer. The permittee shall determine the composition of the coating materials by formulation data supplied by the manufacturer of the coating material or from data determined by an analysis of each coating material, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coating materials by Reference Method 24 or an equivalent or alternative method.

## VI. Miscellaneous Requirements

None

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Old Top Coat Paint System (K007)

**Activity Description:** Following the blowoff booth, the reinforcing booth is used as needed for the application of an extra layer of top coat to the steel cabinet. Following prereinforcing, if completed, the cabinet is routed to the Ransburg paint booth for application of a top coat. The vapor tunnel effects initial removal of VOCs that are being emitted from the drying paint, after the Ransburg paint application, preventing

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
old top coat system [reinforcing booth, ransburg booth, vapor tunnel and 10 mmBtu/hr natural gas/liquified petroleum gas (LPG) oven]	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb PE/hr
	OAC rule 3745-21-09(K)	2.8 lbs pounds of VOC per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents
	OAC rule 3745-31-05 (PTI #03-1758)	The total VOC emissions from emissions units K005, K007, K008, K009, K010 and K011, combined, shall not exceed 460 tons per year.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(K), 3745-17-07(A) and 3745-17-11(B).

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the name and identification number of each coating employed;
  - b. the VOC content, in pounds/gallon, excluding water and exempt solvents, in pounds per gallon, of each coating employed;
  - c. the number of gallons of each coating employed, excluding water and exempt solvents; and
  - d. the daily, volume-weighted average VOC content of the combination of coatings employed, in pounds/gallon, excluding water and exempt solvents [calculated by summing (b x c) for all coatings, divided by the total number of gallons, excluding water and exempt solvents, of all coatings].
2. The permittee shall collect and record the following information for each month for emissions units K005, K007, K008, K009, K010 and K011, combined:
  - a. the name and identification number of each material employed;
  - b. the VOC content of each material employed, in pounds per gallon;
  - c. the volume, in gallons, of each material employed;
  - d. the emissions of VOC for each material employed (b x c), in pounds; and
  - e. the total emissions of VOC for all the materials employed (summation of d for all materials, divided by 2000), in tons.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of noncomplying coatings (i.e., for VOC content, based on a daily volume-weighted average). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
2. The permittee shall submit annual reports that summarize the actual annual VOC emissions for emissions units K005, K007, K008, K009, K010 and K011, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation: Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitation: 0.551 lb PE/hr

Applicable Compliance Method: Compliance with the hourly PE limitation may be demonstrated by utilizing the following equation:

$$E = (\text{maximum coating solids usage rate, in pounds per hour}) \times (1-TE) \times (1-CE)$$

where:

$$E = \text{PE rate (lbs/hr)}$$

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids employed.

CE = control efficiency of the control equipment

If required, the permittee shall demonstrate compliance with the hourly PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

### 1.c Emission Limitation: 2.8 lbs of VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III of the terms and conditions of this permit. The daily, volume-weighted average of all the coatings employed shall be calculated using the following equation:

$$\text{Daily volume-weighted average} = [\text{summation of } (G_i \times \text{VOC}_i)] / [\text{summation of } G_i] \text{ for } i = 1 \text{ to } n$$

where:

$$i = 1, 2, 3, \dots, n$$

n = the total number of the different types of coatings employed for that day

$G_i$  = the number of gallons of coating  $i$  (excluding water and exempt solvents) employed for that day

$\text{VOC}_i$  = the VOC content of coating  $i$ , in pounds/gallon of coating, excluding water and exempt solvents

Emission Limitation: 460 TPY VOC

Applicable Compliance Method: Compliance shall be demonstrated based upon the record keeping requirements in section A.III of this permit and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

2. Any determination of VOC content, solids content, or density of a coating shall be based on the coating as employed (as applied), including the addition of any thinner or viscosity reducer to the coating. The permittee shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by an analysis of each coating, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coatings by Reference Method 24 or an equivalent or alternative method.

## VI. Miscellaneous Requirements

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** #2 E-Coat Paint System (K009)

**Activity Description:** Prepped parts are conveyed through an electrostatic paint bath for coating and then rinsed three times. Following the #2 E-coat process, painted parts are sent to the #2 E-Coat cure oven.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
#2 e-coat paint system [cathodic e-coat bath with rinse stages and 10 mmBtu/hr natural gas/liquified petroleum gas (LPG) cure oven]	OAC rule 3745-21-09(K)	2.8 lbs pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents (See A.I.2.a.)
	OAC rule 3745-31-05 (PTI #03-1758)	The total VOC emissions from emissions units K005, K007, K008, K009, K010 and K011, combined, shall not exceed 460 tons per year.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(K).

##### 2. Additional Terms and Conditions

- 2.a The VOC contents of the coatings employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 2.8 lbs VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents. To ensure compliance with this VOC content limitation, each material, except for solvents, added to the dip tank shall meet the limitation of 2.8 pounds of VOC per gallon of coating materials, excluding water and exempt solvents. On any day when solvents are added to the dip tank, the combination of all materials added on each such day shall meet the limitation of 2.8 pounds of VOC per gallon of materials, as a daily, volume-weighted average, excluding water and exempt solvents.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day for the electrocoating dip tank:
  - a. the name and identification number of each material added to the dip tank;
  - b. the VOC content, excluding water and exempt solvents, in pounds per gallon, of each material added to the dip tank;
  - c. the number of gallons of each material added to the dip tank, excluding water and exempt solvents; and
  - d. on the days when solvents are added to the dip tank, the daily, volume-weighted average VOC content of the combination of materials added to the dip tank, in pounds/gallon, excluding water and exempt solvents [calculated by summing (b x c) for all materials, divided by the total number of gallons, excluding water and exempt solvents, of all materials].
  
2. The permittee shall collect and record the following information for each month for emissions units K005, K007, K008, K009, K010 and K011, combined:
  - a. the name and identification number of each material employed;
  - b. the VOC content of each material employed, in pounds per gallon;
  - c. the volume, in gallons, of each material employed;
  - d. the emissions of VOC for each material employed (b x c), in pounds; and
  - e. the total emissions of VOC for all the materials employed (summation of d for all materials, divided by 2000), in tons.

### IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of noncomplying coating materials (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
2. The permittee shall submit annual reports that summarize the actual annual VOC emissions for emissions units K005, K007, K008, K009, K010 and K011, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
2.8 lbs of VOC/gallon of coating, excluding water and exempt solvents  
2.8 lbs of VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvent (on the days when solvents are added to the dip tank)

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

The daily, volume-weighted average of all the materials added to the dip tank shall be calculated using the following equation:

$$\text{Daily volume-weighted average} = [\text{summation of } (G_i \times \text{VOC}_i)] / [\text{summation of } G_i] \text{ for } i = 1 \text{ to } n$$

where:

$$i = 1, 2, 3, \dots, n$$

$n$  = the total number of the different types of materials added to the dip tank for that day

$G_i$  = the number of gallons of material  $i$  (excluding water and exempt solvents) added to the dip tank for that day

$\text{VOC}_i$  = the VOC content of material  $i$ , in pounds/gallon of material, excluding water and exempt solvents

- 1.b** Emission Limitation: 460 tons/yr VOC

Applicable Compliance Method: Compliance shall be demonstrated based upon the record keeping requirements in section A.III of this permit and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

- 2.** Any determination of VOC content, solids content, or density of a coating material shall be based on the coating material as employed (as applied), including the addition of any thinner or viscosity reducer. The permittee shall determine the composition of the coating materials by formulation data supplied by the manufacturer of the coating material or from data determined by an analysis of each coating material, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coating materials by Reference Method 24 or an equivalent or alternative method.

## VI. Miscellaneous Requirements

None

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** New Top Coat Paint System (K010)

**Activity Description:** Following the blowoff booth, the reinforcing booth is used as needed for the application of an extra layer of top coat to the steel cabinet. Following reinforcing, if completed, the cabinet is routed to the Ransburg paint booth for application of a top coat. The shading booth and vapor tunnel effects initial removal of VOCs that are being emitted from drying paint, after the Ransburg paint

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
new top coat paint system [reinforcing booth, Ransburg booth, vapor tunnel and 3.6 mmBtu/hr natural gas/liquified petroleum gas (LPG) cure oven]	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb PE/hr
	OAC rule 3745-21-09(K)	2.8 lbs pounds of VOC per gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents
	40 CFR, Part 60, Subpart SS	0.90 kg VOC/liter of applied coating solids, based on a monthly volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids
	OAC rule 3745-31-05 (PTI #03-1758)	The total VOC emissions from emissions units K005, K007, K008, K009, K010 and K011, combined, shall not exceed 460 tons per year.
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(K), 3745-17-07(A) and 3745-17-11(B), and 40 CFR, Part 60, Subpart SS.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the name and identification number of each coating employed;
  - b. the VOC content, excluding water and exempt solvents, in pounds per gallon, of each coating employed;
  - c. the number of gallons of each coating employed, in pounds, excluding water and exempt solvents; and
  - d. the daily, volume-weighted average VOC content of the combination of coatings employed, in pounds/gallon, excluding water and exempt solvents [calculated by summing (b x c) for all coatings, divided by the total number of gallons, excluding water and exempt solvents, of all coatings].

2. Each month, the permittee shall determine the monthly volume-weighted average of the total mass of VOCs emitted to the atmosphere per volume of applied coating solids, in kilograms per liter, calculated as follows:

- 2.a Calculate the mass of VOCs consumed ( $M_o + M_d$ ) during the calendar month by the following equation:

$$M_o + M_d = [\text{summation of } (L_{ci} \times D_{ci} \times W_{oi}) \text{ for } i = 1, 2, \dots, n + \text{summation of } (L_{dj} \times D_{dj}) \text{ for } j = 1, 2, \dots, m]$$

where:

$M_o$  = the total VOC emissions, in kilograms, from all the coatings consumed, as received

$M_d$  = the total VOC emissions, in kilograms, from all the solvents added to the coatings

$L_{ci}$  = the total volume, in liters, of coating  $i$  consumed, as received

$L_{dj}$  = the total volume, in liters, of solvent  $j$  added to coatings

$D_{ci}$  = density of coating  $i$ , as received (kilograms per liter)

$D_{dj}$  = density of solvent  $j$  added to coatings (kilograms per liter)

$W_{oi}$  = the fraction, by weight, of the VOCs in coating  $i$ , as received

$n$  = the number of different coatings used during the calendar month

$m$  = the number of different solvents added to coatings during the calendar month

- 2.b Calculate the total volume of coatings solids used ( $L_s$ ) in the calendar month by the following equation:

$$L_s = \text{summation of } (L_{ci} \times V_{si}) \text{ for } i = 1, 2, \dots, n$$

where:

$L_s$  = the volume of all the coatings solids consumed (liters)

$L_{ci}$  = the volume of coating  $i$  consumed, as received (liters)

$V_{si}$  = the fraction, by volume, of the solids in coating  $i$ , as received

$n$  = the number of different coatings used during the calendar month

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

- 2.c** Calculate the volume-weighted average mass of VOCs consumed per unit volume of coating solids applied during the calendar month by the following equation:

$$G = (M_o + M_d) / (L_s \times T)$$

where:

G = the volume-weighted average mass of VOCs in coatings consumed in a calendar month per unit volume of applied coating solids (kilograms per liter)

T = transfer efficiency (0.9)

- 3.** The permittee shall collect and record the following information for each month for emissions units K005, K007, K008, K009, K010 and K011, combined:
- the name and identification number of each material employed;
  - the VOC content of each material employed, in pounds per gallon;
  - the volume, in gallons, of each material employed;
  - the emissions of VOC for each material employed (b x c), in pounds; and
  - the total emissions of VOC for all the materials employed (summation of d for all materials, divided by 2000), in tons.

### IV. Reporting Requirements

- The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the VOC content limitation of 0.9 kg VOC/liter of coating solids (based on a monthly volume-weighted average). The quarterly deviation reporting shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
- The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of noncomplying coating materials (i.e., for VOC content, based on a daily volume-weighted average). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
- The permittee shall submit annual reports that summarize the actual annual VOC emissions for emissions units K005, K007, K008, K009, K010 and K011, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

- Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation: 2.8 lbs of VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit. The daily, volume-weighted average of all the coatings employed shall be calculated using the following equation:

$$\text{Daily volume-weighted average} = [\text{summation of } (G_i \times \text{VOC}_i)] / [\text{summation of } G_i] \text{ for } i = 1 \text{ to } n$$

where:

$$i = 1, 2, 3, \dots, n$$

$n$  = the total number of the different types of coatings employed for that day

$G_i$  = the number of gallons of coating  $i$  (excluding water and exempt solvents) employed for that day

$\text{VOC}_i$  = the VOC content of coating  $i$ , in pounds/gallon of coating, excluding water and exempt solvents

- 1.b** Emission Limitation: 0.90 kg VOC/liter of applied coating solids (based on a monthly volume-weighted average)

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.2 of the terms and conditions of this permit.

- 1.c** Emission Limitation: Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

- 1.d** Emission Limitation: 0.551 lb PE/hr

Applicable Compliance Method: Compliance with the hourly PE limitation may be demonstrated by utilizing the following equation:

$$E = (\text{maximum coating solids usage rate, in pounds per hour}) \times (1 - \text{TE}) \times (1 - \text{CE})$$

where:

$$E = \text{PE rate (lbs/hr)}$$

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids employed.

CE = control efficiency of the control equipment

If required, the permittee shall demonstrate compliance with the hourly PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 1.e** Emission Limitation: 460 tons/yr VOC

Applicable Compliance Method: Compliance shall be demonstrated based upon the record keeping requirements in section A.III.3 of this permit and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

## **V. Testing Requirements (continued)**

2. Any determination of VOC content\*, solids content, or density of a coating shall be based on the coating as employed (as applied), including the addition of any thinner or viscosity reducer to the coating. The permittee shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by an analysis of each coating, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coatings by Reference Method 24 or an equivalent or alternative method.

\* "VOC content" means all volatile organic compounds that are in a coating expressed as pounds of VOC per gallon, excluding water and exempt solvents, and kilograms of VOC per liter of coating solids.

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** #3 E-Coat Paint System (K011)

**Activity Description:** Prepped parts are conveyed through an electrostatic bath for coating. After coating, the parts are rinsed three times. Following the #3 e-coat process, painted parts are sent to the #3 E-Coat cure oven.

#### 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
#3 e-coat paint system [cathodic e-coat bath with rinse stages and 10 mmBtu/hr natural gas/liquified petroleum gas (LPG) cure oven]	OAC rule 3745-21-09(K)	2.8 lbs pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents (See A.I.2.a.)
	NSPS, 40 CFR Part 60, Subpart SS	0.90 kg VOC/liter of applied coating solids, based on a monthly volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids
	OAC rule 3745-31-05 (PTI #03-1758)	The total VOC emissions from emissions units K005, K007, K008, K009, K010 and K011, combined, shall not exceed 460 tons per year.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(K) and 40 CFR, Part 60, Subpart SS.

##### 2. Additional Terms and Conditions

- 2.a The VOC contents of the coatings employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 2.8 lbs VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvents. To ensure compliance with this VOC content limitation, each material, except for solvents, added to the dip tank shall meet the limitation of 2.8 pounds of VOC per gallon of coating materials, excluding water and exempt solvents. On any day when solvents are added to the dip tank, the combination of all materials added on each such day shall meet the limitation of 2.8 pounds of VOC per gallon of materials, as a daily, volume-weighted average, excluding water and exempt solvents.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day for the electrocoating dip tank:
  - a. the name and identification number of each material added to the dip tank;
  - b. the VOC content, excluding water and exempt solvents, in pounds per gallon, of each material added to the dip tank;
  - c. the number of gallons of each material added to the dip tank, excluding water and exempt solvents; and
  - d. on the days when solvents are added to the dip tank, the daily, volume-weighted average VOC content of the combination of materials added to the dip tank, in pounds/gallon, excluding water and exempt solvents [calculated by summing (b x c) for all materials, divided by the total number of gallons, excluding water and exempt solvents, of all materials].

2. Each month, the permittee shall determine the monthly volume-weighted average of the total mass of VOCs emitted to the atmosphere per volume of applied coating solids, in kilograms per liter, calculated as follows:

- 2.a Calculate the mass of VOCs consumed (Mo+Md) during the calendar month by the following equation:

$$Mo+Md = [\text{summation of } (L_{ci} \times D_{ci} \times W_{oi}) \text{ for } i = 1, 2, \dots, n + \text{summation of } (L_{dj} \times D_{dj}) \text{ for } j = 1, 2, \dots, m]$$

where:

Mo = the total VOC emissions, in kilograms, from all the coatings consumed, as received

Md = the total VOC emissions, in kilograms, from all the solvents added to the coatings

Lci = the total volume, in liters, of coating i consumed, as received

Ldj = the total volume, in liters, of solvent j added to coatings

Dci = density of coating i, as received (kilograms per liter)

Ddj = density of solvent j added to coatings (kilograms per liter)

Woi = the fraction, by weight, of the VOCs in coating i, as received

n = the number of different coatings used during the calendar month

m = the number of different solvents added to coatings during the calendar month

- 2.b Calculate the total volume of coatings solids used (Ls) in the calendar month by the following equation:

$$Ls = \text{summation of } (L_{ci} \times V_{si}) \text{ for } i = 1, 2, \dots, n$$

where:

Ls = the volume of all the coatings solids consumed (liters)

Lci = the volume of coating i consumed, as received (liters)

Vsi = the fraction, by volume, of the solids in coating i, as received

n = the number of different coatings used during the calendar month

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

- 2.c Calculate the volume-weighted average mass of VOCs consumed per unit volume of coating solids applied during the calendar month by the following equation:

$$G = (M_o + M_d) / (L_s \times T)$$

where:

G = the volume-weighted average mass of VOCs in coatings consumed in a calendar month per unit volume of applied coating solids (kilograms per liter)

T = transfer efficiency (0.95)

3. The permittee shall collect and record the following information for each month for emissions units K005, K007, K008, K009, K010 and K011, combined:
- the name and identification number of each material employed;
  - the VOC content of each material employed, in pounds per gallon;
  - the volume, in gallons, of each material employed;
  - the emissions of VOC for each material employed (b x c), in pounds; and
  - the total emissions of VOC for all the materials employed (summation of d for all materials, divided by 2000), in tons.

### IV. Reporting Requirements

- The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the VOC content limitation of 0.9 kg VOC/liter of coating solids (based on a monthly volume-weighted average). The quarterly deviation reporting shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.
- The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing the use of noncomplying coating materials (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
- The permittee shall submit annual reports that summarize the actual annual VOC emissions for emissions units K005, K007, K008, K009, K010 and K01, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

### V. Testing Requirements

- Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - Emission Limitation: 0.90 kg VOC/liter of applied coating solids (based on a monthly volume-weighted average)

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III of the terms and conditions of this permit.

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
2.8 lbs of VOC/gallon of coating, excluding water and exempt solvents  
2.8 lbs of VOC/gallon of coating, as a daily volume-weighted average, excluding water and exempt solvent (on the days when solvents are added to the dip tank)

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

The daily, volume-weighted average of all the materials added to the dip tank shall be calculated using the following equation:

$$\text{Daily volume-weighted average} = [\text{summation of } (G_i \times \text{VOC}_i)] / [\text{summation of } G_i] \text{ for } i = 1 \text{ to } n$$

where:

$$i = 1, 2, 3, \dots, n$$

$n$  = the total number of the different types of materials added to the dip tank for that day

$G_i$  = the number of gallons of material  $i$  (excluding water and exempt solvents) added to the dip tank for that day

$\text{VOC}_i$  = the VOC content of material  $i$ , in pounds/gallon of material, excluding water and exempt solvents

- 1.c** Emission Limitation: 460 tons/yr VOC

Applicable Compliance Method: Compliance shall be demonstrated based upon the record keeping requirements in section A.III of this permit and shall be the sum of the 12 monthly VOC emission rates for the calendar year.

- 2.** Any determination of VOC content, solids content, or density of a coating material shall be based on the coating material as employed (as applied), including the addition of any thinner or viscosity reducer. The permittee shall determine the composition of the coating materials by formulation data supplied by the manufacturer of the coating material or from data determined by an analysis of each coating material, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coating materials by Reference Method 24 or an equivalent or alternative method.

## VI. Miscellaneous Requirements

None

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Powder Coat Sys (K012)

**Activity Description:** Organic powder coating (powdered acrylic) is applied to parts that require it. Coated parts are cured in the powder coat oven.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
organic powder coating paint system [booths and 10 mmBtu/hr natural gas/liquified petroleum gas (LPG) cure oven]	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb PE/hr
	OAC rule 3745-21-09(K)	2.8 lbs pounds of VOC per gallon of coating, excluding water and exempt solvents

**2. Additional Terms and Conditions**

- 2.a Each coating employed in this emissions unit shall meet the limitation of 2.8 lbs VOC/gallon of coating, excluding water and exempt solvents.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each month for this emissions unit:
  - a. the name and identification number of each coating employed; and
  - b. the VOC content, excluding water and exempt solvents, in pounds per gallon, of each coating employed.

**IV. Reporting Requirements**

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coating materials (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

**V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

## **V. Testing Requirements (continued)**

- 1.a** Emission Limitation: 2.8 lbs of VOC/gallon of coating, excluding water and exempt solvents

Applicable Compliance Method: Compliance shall be based upon the record keeping specified in section A.III.1 of the terms and conditions of this permit.

- 1.b** Emission Limitation: Visible PE shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

- 1.c** Emission Limitation: 0.551 lb PE/hr

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

- 2.** Any determination of VOC content\*, solids content, or density of a coating shall be based on the coating as employed (as applied), including the addition of any thinner or viscosity reducer to the coating. The permittee shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by an analysis of each coating, as received, by Reference Method 24. The Ohio EPA may require the permittee, if it uses formulation data supplied by the manufacturer, to determine the VOC contents of the coatings by Reference Method 24 or an equivalent or alternative method.

\* "VOC content" means all volatile organic compounds that are in a coating expressed as pounds of VOC per gallon, excluding water and exempt solvents, and kilograms of VOC per liter of coating solids.

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (N001)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating. This unit will be replaced P022 in the fall of 1997.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	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 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-9707)	1.0 lb PE/hr [This emission limitation is less stringent than the emission limitation based on OAC rule 3745-17-09(B).]  Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.

## **II. Operational Restrictions (continued)**

2. The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - b. the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.
3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## **III. Monitoring and/or Record Keeping Requirements**

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

#### **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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
1.0 lb PE/hr  
0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator  
  
Applicable Compliance Method: Compliance with the PE limitation above shall be based upon the results of stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate for particulates: Methods 1 - 5 of 40 CFR, Part 60, Appendix A.
  - d. 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 appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), 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 test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

#### **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pyrolysis Furnace (N001)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating. This unit will be replaced P022 in the fall of 1997.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	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 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-9707)	1.0 lb PE/hr [This emission limitation is less stringent than the emission limitation based on OAC rule 3745-17-09(B).]  Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.

## II. Operational Restrictions (continued)

2. The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - b. the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.
3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

#### **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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
1.0 lb PE/hr  
0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator  
  
Applicable Compliance Method: Compliance with the PE limitation above shall be based upon the results of stack testing conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months after permit issuance.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate for particulates: Methods 1 - 5 of 40 CFR, Part 60, Appendix A.
  - d. 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 appropriate Ohio EPA District Office or local air agency.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), 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 test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (N002)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating. This unit replaced P024.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	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 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-9707)	1.0 lb PE/hr [This emission limitation is less stringent than the emission limitation based on OAC rule 3745-17-09(B).]  Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.

## II. Operational Restrictions (continued)

2. The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - b. the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.
3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

#### **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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
1.0 lb PE/hr  
0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator  
  
Applicable Compliance Method: If required, compliance with the PE limitation above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation: Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.  
  
Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (N003)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating. This unit replaced P019. The old was shut down in Dec. of 1997 and this new unit was started up on Feb.10,1998.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	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 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-9707)	1.0 lb PE/hr [This emission limitation is less stringent than the emission limitation based on OAC rule 3745-17-09(B).]
		4.38 tons/yr PE
		Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.

## II. Operational Restrictions (continued)

2. The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - b. the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.
3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

#### 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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1.a Emission Limitations:

1.0 lb PE/hr

0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

4.38 tons/yr PE

Applicable Compliance Method: If required, compliance with the PE limitation above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- 1.b Emission Limitation: Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### VI. Miscellaneous Requirements

None

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (N004)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating. This unit replaced P020. The old was shut down in Dec. of 1997 and this new unit was started up on Feb.11,1998.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	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 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-9707)	1.0 lb PE/hr [This emission limitation is less stringent than the emission limitation based on OAC rule 3745-17-09(B).]
		4.38 tons/yr PE
		Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.

## II. Operational Restrictions (continued)

2. The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - b. the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.
3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

#### **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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1.a Emission Limitations:

1.0 lb PE/hr

0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

4.38 tons/yr PE

Applicable Compliance Method: If required, compliance with the PE limitation above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- 1.b Emission Limitation: Visible PE from this emissions unit shall not exceed 5% opacity except for six minutes in any continuous sixty-minute period during which the opacity shall not exceed 10%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (P021)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.
- The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.

## II. Operational Restrictions (continued)

3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

## 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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitation:  
0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

**1.b** Emission Limitation: Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (P023)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-2677)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-09(B) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.
- The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.

## II. Operational Restrictions (continued)

3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

## 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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

0.13 lb PE/hr

0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitations above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

**1.b** Emission Limitation: Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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:** Pyrolysis Furnace (P025)

**Activity Description:** Furnace with integrated afterburner designed to remove limited amounts of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
131 lbs/hr pyrolysis furnace, with afterburner	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-2677)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-09(B) and 3745-17-07(A).

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

- This emissions unit shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying, with the manufacturer, that the change(s) would not adversely affect air contaminant emissions from the unit.
- The air contaminant control device (afterburner) serving this emissions unit shall be designed and operated in accordance with the following requirements:
  - the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1400 degrees Fahrenheit, taking into account the normal start-up procedures; and
  - the secondary combustion chamber shall allow for a minimum of 0.5 second retention time at 1400 degrees Fahrenheit, taking into account normal start-up procedures.

## II. Operational Restrictions (continued)

3. The permittee shall comply with the following operational restrictions:
  - a. ensure that the pyrolysis furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;
  - b. prior to start-up of the furnace, remove ash residue left inside the furnace after the previous burn cycle;
  - c. during the automatic "water spray check", which is an integral part of the unit's start-up sequence, the operator shall walk to the front of the furnace, look inside, and visually verify that the water spray is functional, and if the water spray is not adequate or the nozzles are plugged, the permittee shall shut down the furnace and take the appropriate steps necessary to fix the problem before restarting the unit;
  - d. not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and
  - e. not process uncured paint or paint sludge, paint filters, PVC, lead, plastisols, rubber coated material, oil, wood, grease, trash, magnesium, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Coatings that may contain chlorine (PVC), fluorine (Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being

## III. Monitoring and/or Record Keeping Requirements

1. 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 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 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.
2. The permittee shall properly operate and maintain the monitoring devices associated with the furnace's safeguards and interlock system.
3. The permittee shall maintain an operation/maintenance log for this emissions unit. The log shall, at a minimum, contain the following information:
  - a. the dates the emissions unit was in operation;
  - b. the number of batches processed for each date the emissions unit was in operation;
  - c. the date of any malfunction of the emissions unit water spray system and/or safeguards/interlocks, the corrective action taken, and the date it was completed; and
  - d. the dates and descriptions of any additional maintenance activities performed on the emissions unit.

## 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 this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) 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 the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

0.13 lb PE/hr

0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitations above shall be conducted in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

**1.b** Emission Limitation: Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## **VI. Miscellaneous Requirements**

**None**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

**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

\*\*\*\*\*

**THIS IS THE LAST PAGE OF THE PERMIT**

\*\*\*\*\*