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

04/02/03

CERTIFIED MAIL

RE: Preliminary Proposed Title V
Chapter 3745-77 permit

13-18-04-0267
Sherwin-Williams Diversified Brands, Inc.
Ted Cligrow
26300 Fargo Avenue
Bedford Heights, OH 44146

Dear Ted Cligrow:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 03/30/01. 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

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

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,

Michael W. Ahern

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

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

State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Issue Date: 04/02/03	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 13-18-04-0267 to:

Sherwin-Williams Diversified Brands, Inc.
26300 Fargo Avenue
Bedford Heights, OH 44146

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

P002 (Line # 3) Mixing, Filling, & Charging of Aerosol Containers	P004 (Line # 6) Mixing, Filling, & Charging of Aerosol Containers	P006 (Can Piercing) Equipment Used to Pierce Aerosol Containers
P003 (Line # 5) Mixing, Filling, & Charging of Aerosol Containers	P005 (Line # 7) Mixing, Filling, & Charging of Aerosol Containers	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

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

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

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

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (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. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii)

pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))

(b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**
Written reports that identify any deviations from the federally enforceable monitoring, record keeping, 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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, record keeping, 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.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

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

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 of any emissions unit(s) 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 OAC rule 3745-15-06, 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).
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

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

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

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

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

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

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

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

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

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after

promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

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

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

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

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

11. Federal and State Enforceability

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

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

12. Compliance Requirements

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

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

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

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

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

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

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

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

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

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

13. Permit Shield

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

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

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

14. Operational Flexibility

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

15. Emergencies

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

16. Off-Permit Changes

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

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

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, 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.

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 purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

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

18. Insignificant Activities

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

19. Permit to Install Requirement

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

20. Air Pollution Nuisance

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

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

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

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this

permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

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

3. Inspections and Information Requests

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

4. Scheduled Maintenance/Malfunction Reporting

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

5. Permit Transfers

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

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

If no 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:

Boilers:
B001 - Boiler # 8 / (Area G) 2,320,000 Btu/Hr Natural Gas Boiler
Z101 - Boiler # 9 / (Area G) 2,320,000 Btu/Hr Natural Gas Boiler
B002 - Boilers # 5 / (Main Boiler Room) 1,260,000 Btu/Hr Natural Gas Boiler
B003 - Boiler # 6 / (Mezzanine Boiler) 735,000 Btu/Hr Natural Gas Boiler
B004 - Boiler # 7 / (Mezzanine Boiler) 1,050,000 Btu/Hr Natural Gas Boiler
B005 - Boilers # 1 /(Main Boiler Room) 3,060,000 Btu/Hr Natural Gas Boiler
Z105 - Boilers # 2 /(Main Boiler Room) 3,060,000 Btu/Hr Natural Gas Boiler
B006 - Boilers # 3 / (Main Boiler Room) 3,150,000 Btu/Hr Natural Gas Boilers
Z106 - Boilers # 4 / (Main Boiler Room) 3,150,000 Btu/Hr Natural Gas Boilers
B007 - Boiler # 10 / (Pump House, Water Tank) 1,680,000 Btu/Hr Natural Gas Boilers

Bulk Storage - Raw Materials:
T001 - Tank # 2 / 4,000-Gallon Solvent Storage Tank / 1,1,1 Trichloroethane
T002 - Tank # 4 / 6,000-Gallon Propellant Storage Tank / Dimethyl Ether
T003 - Tank # 6 / 6,000-Gallon Propellant Storage Tank / Dimethyl Ether
T004 - Tank # 8 / 8,000-Gallon Propellant Storage Tank / NP-108 Propane
T005 - Tank # 10 / 8,000-Gallon Propellant Storage Tank / NP-108 Propane
T006 - Tank # 12 / 10,000-Gallon Propellant Storage Tank / NP-85 Propane/Butane
T007 - Tank # 14 / 10,000-Gallon Propellant Storage Tank / NP-46 Propane/Butane
T008 - Tank # 16 / 10,000-Gallon Propellant Storage Tank / A-70 Propane/Butane
T010 - Tank # 20 / 2,200-Gallon Propellant Storage Tank / F113 Freon
T011 - Tank # 22 / 5,000-Gallon Propellant Storage Tank / F-11 Freon
T012 - Tank # 24 / 7,700-Gallon Propellant Storage Tank / F-134A Freon
T013 - Tank # 26 / 10,000-Gallon Propellant Storage Tank / F-22 Freon
T014 - Tank # 28 / 12,000-Gallon Solvent Storage Tank /Tolune
T015 - Tank # 30 / 12,000-Gallon Solvent Storage Tank / Methyl Ethyl Ketone
T016 - Tank # 32 / 5,000-Gallon Solvent Storage Tank / Ethyl Ethoxy Propanol
T017 - Tank # 34 / 12,000-Gallon Solvent Storage Tank / Acetone
T018 - Tank # 36 / 5,000-Gallon Solvent Storage Tank / Hexane
T019 - Tank # 38 / 12,000-Gallon Solvent Storage Tank / Perchloroethane
T020 - Tank # 40 / 5,000-Gallon Solvent Storage Tank / Xylene
T021 - Tank # 42 / 12,000-Gallon Solvent Storage Tank / Acetone
T022 - Tank # 44 / 12,000-Gallon Propellant Storage Tank / NP-70 Propane/Butane
T023 - Tank # 46 / 12,000-Gallon Propellant Storage Tank / NP-70 Propane/Butane
Z020 - Tank #18 / 7,000-Gallon Propellant Tank / carbon dioxide
Z021 - Tank #50 / 3,000-Gallon propellant tank / nitrogen
Z022 - Tank #20 / 1,000-Gallon propellant tank / hydrocarbon mixture
Z023 - Tank #54 / 250-Gallon propellant tank / hydrocarbon mixture
Z024 - Tank #56 / 50-Gallon propellant tank / hydrocarbon mixture

B. State Only Enforceable Section (continued)

Z025 - 250-Gallon Diesel Tank (associated with Z003)

Heaters, Roof Units:

Z010 - Area G/1,600,000 Btu/Hr Input Natural Gas
Z011 - Lab-South/300,000 Btu/Hr Input Natural Gas
Z012 - Lab-North Unit/100,000 Btu/Hr Input Natural Gas
Z013 - Lab-North Unit 1/400,000 Btu/Hr Input Natural Gas
Z014 - Lab-East Unit 1/
Z015 - Lab-East Unit 2/300,000 Btu/Hr Input Natural Gas
Z016 - Production Office-Unit 1/1,900,000 Btu/Hr Input Natural Gas
Z017 - New Ware House-Unit 1/3,698,000 Btu/Hr Input Natural Gas
Z018 - Area Near Valve Room North-Unit 1/1,848,000 Btu/Hr Input Natural Gas

Other:
Z001 - QA/QC Laboratory (test spray booth, hoods, single-head gasser, and solvent filling stations)
Z002 - Diesel Fire Water Pump (Emergency) / 220 Hp @ 2100 RPM
Z003 - Line # 3 Parts Cleaning Station (small parts cleaning station used by maintenance)
Z004 - Tow Motor Parts Cleaning Station (small parts cleaning station used by maintenance)
Z005 - R&D Lab (test spray booth, hoods, and single-head gasser)

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 for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Line # 3 (P002)

Activity Description: Mixing, Filling, & Charging of Aerosol Containers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol filling line (liquid mixing, liquid filling of aerosol cans, propellant filling of aerosol cans by under-the-cup fill, propellant line purging, and manual cleaning of filled aerosol cans) with the gashouse operations (propellant filling and propellant line purging) controlled by thermal incinerator (See section A.VI.1. for listing of liquid mixing tanks.)	OAC rule 3745-31-05(A)(3) PTI 13-3186 (issued 02/26/97, and modified 04/30/97)	Volatile organic compound (VOC) emissions from liquid filling of aerosol cans shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07 and 3745-17-11.
	Findings and Orders entered into the Director's Journal on August 18, 1995 and approved by USEPA as a SIP revision for this facility (formerly Sprayon Products Incorporated) on April 25, 1996	See section A.I.2.a. below.
	OAC rule 3745-21-07(G)(2)	See section A.I.2.b. below.
	OAC rule 3745-17-11(B)(1)	During the loading of solid materials into a liquid mixing tank, particulate emissions shall not exceed 0.551 pound/hour (based on Table I).
	OAC rule 3745-17-07(A)	During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a. For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced. (Note: This includes all VOC emissions from emissions units P002 through P006. Emissions unit P001 has been shut down.)

(This VOC emissions limitation is based on a pending resolution of the facility's appeal of the August 18, 1995 Findings and Orders and a pending resolution of the facility's appeal of USEPA's April 25, 1996 approval of the August 18, 1995 Findings and Orders as a SIP revision. A revised Findings and Orders that includes such pending resolution is to be issued by the Director with appropriate public notice and submitted to USEPA as a SIP revision.)

2.b. The requirements under this rule are not applicable due to the federally enforceable, site-specific requirements, based on reasonably available control technology (RACT), contained in the 8/18/95 Director's Findings and Orders. These RACT requirements are intended to be added to OAC rule 3745-21-09 pursuant to "Section VII.: Termination" of the 8/18/95 Findings and Orders. Also, as specified within OAC rule 3745-21-07(A)(2)(a), the requirements under OAC rule 3745-21-07 shall not apply to " . . . sources which are in compliance with or specifically exempted from the applicable requirements of rule 3745-21-09 of the Administrative Code."

II. Operational Restrictions

1. When the gashouse is in VOC operation, the emissions from the gashouse shall be vented to the thermal incinerator. The gashouse is in VOC operation when either the propellant being used to fill the aerosol cans contains VOC or the propellant being purged from the propellant line contains VOC.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit's gashouse is vented to the thermal incinerator, shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency and mass emission rate of the thermal incinerator were determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record for this emissions unit the following production information each day and maintain the information at the facility:

a. number of operating hours for the aerosol filling line, and

b. number of aerosol cans produced.

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

2. The permittee shall collect and record for this emissions unit the following production information each month and maintain the information at the facility:

a. number of operating hours for the aerosol filling line (sum of daily section A.III.1.a. data);

b. number of aerosol cans produced (sum of daily section A.III.1.b. data);

c. name and amount (pounds) of each VOC liquid charged to the mixing tanks and filled into aerosol cans;

d. number of aerosol cans filled with a VOC propellant by name of propellant, type of propellant filler (under-the-cup fill, needle fill, or Sepro fill), and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

e. number of VOC propellant line purges by name of propellant and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

f. name and amount (pounds) of each VOC liquid (solvent) used in the manual aerosol can cleaning operation (can brushing operation); and

g. number of safety diversion events and number of safety diversion events that are not emergency events (see safety diversions under section A.V.5.).

3. The permittee shall collect and record for this emissions unit the following chemical and physical properties for the VOC liquids and VOC propellants used in this emissions unit:

a. for any VOC liquid used in liquid mixing and liquid filling of aerosol cans, the liquid name, the liquid density (pounds/gallon), and the vapor pressure (mm Hg) at 70 degrees F and 80 degrees F;

b. for any VOC liquid used in manual aerosol can cleaning, the liquid name and the liquid density (lbs/gal); and

c. for any VOC propellant, the liquid density (lbs/gal) under usual propellant storage temperature and pressure, the vapor density (lbs/cc) at propellant filler temperature, and the fraction VOC by weight.

4. The permittee shall calculate and record for each month the following information for this emissions unit:

a. monthly amount of VOC emissions (pounds) from the liquid mixing operation, in accordance with section A.V.2.a.;

b. monthly amount of VOC emissions (pounds) from the liquid filling operation, in accordance with section A.V.2.b.;

c. monthly amount of VOC emissions (pounds) from the gashouse operations (propellant filling, propellant line purging, and safety diversions), in accordance with section A.V.2.c.;

d. monthly amount of VOC emissions (pounds) from the manual aerosol can cleaning operation (can brushing operation), in accordance with section A.V.2.d.;

e. monthly number of aerosol cans produced (sum of daily section A.III.1.b. data);

f. monthly amount of VOC emissions (pounds) from this emissions unit, which is the sum of data recorded under sections A.III.4.a., A.III.4.b., A.III.4.c., and A.III.4.d. for this emissions unit;

g. VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.i*.; and

h. average hourly amount of VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.ii*.

* Unless no longer required pursuant to section A.V.1.b.iv.

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

5. The permittee shall calculate and record for each month the following information for emissions units P002 through P006:

a. monthly amount of VOC emissions (pounds), which is a sum of the monthly VOC emissions recorded under section A.III.4.f. of the part III terms and conditions for emissions units P002 through P005 plus the monthly VOC emissions recorded under section A.III.2. of the part III terms and conditions for emissions unit P006;

b. monthly number of aerosol cans produced, which is a sum of the monthly aerosol can production recorded under section A.III.4.e. of the part III terms and conditions for emissions units P002 through P005;

c. monthly VOC emissions rate in pound/1000 cans, which is 1000 times the value from section A.III. 5.a. divided by the value from section A.III.5.b., and rounded to two decimal places;

d. amount of VOC emissions (pounds) during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.a. for this month and the previous 11 consecutive months;

e. number of aerosol can produced during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.b. for this month and the previous 11 consecutive months; and

f. VOC emissions rate during the rolling 12-month period in pound/1000 cans, which is 1000 times the value from section A.III. 5.d. divided by the value from section A.III.5.e., and rounded to two decimal places.

6. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit's gashouse is in VOC operation. Temperature shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day of gashouse operation:

a. a log of operating time for each of the following: gashouse ventilation to the thermal incinerator, gashouse ventilation directly to ambient air, thermal incinerator operation, temperature monitoring equipment operation, gashouse in VOC operation, and gashouse not in VOC operation;

b. a log of all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit's gashouse is in VOC operation, was more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency of the thermal incinerator was determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.; and

c. a log of the dates and times of the bypass venting of gashouse emissions to ambient air (see safety diversions under section A.V.5.) and any downtime for the thermal incinerator and temperature monitoring equipment, when the emissions unit's gashouse is in VOC operation.

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

7. Visible Emissions from Mixing Tanks

a. The permittee shall perform weekly checks, when pigment is added to the mixing tanks of this emissions unit and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving the mixing tanks. 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:

i. the color of the emissions;

ii. whether the emissions are representative of normal operations;

iii. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

iv. the total duration of any visible emissions incident; and

v. any corrective actions taken to eliminate the visible emissions.

b. In the event of two consecutive quarters in which no visible emissions are observed under section A.III.7.a. for all mixing tanks of this emissions unit, the permittee can elect to perform checks for visible emissions on a monthly basis in the manner described under section A.III.7.a. If visible emissions are subsequently observed during any month, the permittee shall immediately go back to checks for visible emissions during each week as described under section A.III.7.a, and the permittee may again elect to use the provisions under this section.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the emission rate exceedances identified below.

a. Emissions rate recorded under section A.III.5.f. for a rolling 12-month period exceeds 0.75 lb VOC/1000 cans produced.

b. Emissions rate recorded under section A.III.4.h. exceeds 8 lbs VOC/hr.

c. Emissions rate recorded under section A.III.4.g. exceeds 40 lbs VOC/day.

These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the deviations recorded under sections A.III.6.b. and A.III.6.c. These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

3. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly summaries of the records specified under sections A.III.2., A.III.3., A.III.4., and A.III.5. These quarterly summaries shall be submitted by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

4. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly written reports of the records specified under section A.III.7. which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These quarterly reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I. of these terms and conditions shall be determined as follows:

V. Testing Requirements (continued)

1.a. Emission Limitation:
For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced.

Applicable Compliance Method:
Compliance shall be demonstrated by means of:

i. record keeping specified in sections A.III.2., A.III.3., A.III.4., and A.III.5. of the part III terms and conditions of emissions units P002 through P005;

ii. record keeping specified in sections A.III.1., A.III.2., and A.III.3. of the part III terms and conditions of emissions unit P006;

iii. calculating the VOC emissions rate for the mixing tanks (mixing operations), can liquid filling operations, gasser operations (gashouse operations), can brushing operations (manual can cleaning), and can piercing operations at this facility, as specified in section A.V.2. of the part III terms and conditions of emissions units P002 through P006;

iv. testing the thermal incinerator, as specified in A.V.3. of the part III terms and conditions of emissions units P002 through P005; and

v. operating and maintaining a continuous temperature monitor and recorder for the thermal incinerator and maintaining a log of gashouse operations, as specified in section A.III.6. of the part III terms and conditions of emissions units P002 through P005.

In the event additional emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

1.b. Emission Limitation:
Volatile organic compound (VOC) emissions from liquid mixing and liquid filling shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and by calculating VOC emissions from can liquid filling as follows:

i. VOC emissions for each day in the month shall be calculated as (sum of monthly VOC emissions, in pounds, from section A.IV.4.b..) x (number of aerosol cans produced that day)/(total number of aerosol cans produced during the month).

ii. VOC emissions for each hour in the day shall be an hourly average VOC emission that is calculated as (daily VOC emissions from section A.V.1.b.i.)/(operating hours in that day).

iii. VOC emissions for the year are not needed to demonstrate compliance because the annual VOC emissions limit of 7.3 tons/year is not more stringent than the daily VOC limit multiplied by 365 days per year.

iv. In the event the permittee demonstrates to the satisfaction of the Director that the VOC emissions from can liquid filling cannot exceed 8 lbs/hr and 40 lbs/day on a worst case emissions basis for the various types of liquids being filled and the maximum liquid filling rate achievable by the fillers, the recordkeeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and the calculations in sections A.V.1.b.i. and A.V.1.b.ii. shall no longer be required for demonstrating compliance with these emissions limitations. The continued applicability of such worst case calculations shall be documented and submitted annually to the appropriate Ohio EPA District Office or local air agency

In the event emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

V. Testing Requirements (continued)

1.c. Emission Limitation:
Particulate emissions shall not exceed 0.551 pound/hour during the loading of solid materials into a liquid mixing tank.

Applicable Compliance Method:
The liquid mixing tanks for this emissions unit are similar to the mixing tanks at paint manufacturing facilities in which the particulate emissions are estimated to be 0.5 to 1.0 percent of the pigment handled, based on USEPA reference document AP-42: Compilation of Air Pollutant Emission Factors, Fifth Edition (Table 6.4-1 which has a "C" emission factor rating). This facility infrequently adds some pigment to the liquid mixing tanks, and such infrequent and low usage of pigment would not normally cause a particulate emissions to exceed this emissions limitation. Compliance with the visible particulate emissions limitation under section A.III.V.1.d. provides further assurance of compliance of this emissions limitation.

In the event testing is required to demonstrate compliance, the particulate emissions shall be determined by Method 5, 40 CFR 60, Appendix A.

1.d. Emission Limitation:
During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in section A.III.7. and the reporting in section A.IV.4.

In the event testing is required to demonstrate compliance, the visible emissions shall be determined by OAC rule 3745-17-03(B)(1).

2. The VOC emission calculations for this facility were taken in part from the permittee's Air Pollution Emission Model. The VOC emissions from this emissions unit shall be calculated as follows:

2.a. For liquid mixing operations, the monthly VOC emissions (pounds), E(mixing), shall be calculated as follows:

i. E(mixing) = Ei(loading) + Ei(venting)

where:

E(loading) = monthly VOC emissions from loading VOC liquids into mixing tanks

E(venting) = monthly VOC emissions from venting VOC liquids during mixing .

ii. For loading VOC liquid into a mixing tank, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(loading) = monthly sum of Ei(loading) for all VOC liquid "i" loaded into mixing tanks

Ei(loading) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(loading) = lbs of VOC emissions during the month from loading VOC liquid "i" into mixing tanks

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi = volume of VOC liquid "i" charged to mixing tanks during the month in cubic feet (equals monthly gallons of liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

V. Testing Requirements (continued)

iii. For venting of VOC liquids during mixing, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and venting of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(venting) = monthly sum of Ei(venting) for all VOC liquid "i" loaded into mixing tanks

Ei(venting) = Pi * Xi * Vi,v * MWi / (R * T)

where:

Ei(venting) = lbs of VOC emissions during the month for venting a VOC liquid "i" during mixing

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi,v = volume (cu ft) of saturated vapors removed by the ventilation system during mixing of VOC liquid "i" (equals monthly gallons of VOC liquid "i" times 5*30/350 based on 5% of the total ventilation flow rate or 5 cu ft/min, an average mixing time of 30 minutes per batch, and a typical batch size of 350 gallons)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

iv. (Alternative method to sections A.V.2.a.i through A.V.2.a.iii)

An alternative method for calculating the monthly emissions rate for liquid mixing operations shall be as follows

E(mixing) = EFM * V(mixing)

where:

EFM = emission factor of 0.00131 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for mixing operations during 1997 to 2000.)

V(mixing) = monthly throughput of VOC liquid employed for mixing, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in sections A.V.2.a.i through A.V.2.a.iii. shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.b. i. For the liquid filling of aerosol cans, the monthly VOC emissions (pounds) shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 70 degrees F (21 degrees C) as follows:

E(filling) = monthly sum of Ei(filling) for all VOC liquid "i" filling of aerosol cans

Ei(filling) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(filling) = lbs of VOC emissions during the month for VOC liquid "i" filling of aerosol cans

Pi = vapor pressure of VOC liquid "i" at 70 degrees F, in mmHg

Vi = volume of VOC liquid "i" filled into aerosol cans during the month in cubic feet (equals monthly gallons of VOC liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 21 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

ii. (Alternative method to section A.V.2.b.i)

An alternative method for calculating the monthly emissions for liquid can filling operations shall be as follows:

E(filling) = EFF * V(filling)

where:

EFF = emission factor of 0.00026 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for liquid can filling operations during 1997 to 2000.)

V(filling) = monthly throughput of VOC liquid employed for can filling, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in section A.V.2.b.i shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.c. For the gasser (gashouse) operations, the monthly VOC emissions (pounds), EG(total), shall be calculated as follows:

i. EG(total) = EG(filling) + EG(purging) + EG(safety diversions)

where:

EG(filling) = monthly VOC emissions from filling aerosol cans with VOC propellant

EP(purging) = monthly VOC emissions from purging of lines containing VOC propellant

EG(safety diversions) = monthly VOC emissions from safety diversions of VOC control equipment

ii. For the filling of aerosol cans with VOC propellant and the purging of lines containing VOC propellant, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG(filling) = monthly sum of (NCp,f,v) x (EFp,f) x (Kp) x (1 - CEp,v/100) x (VOCp)

EP(purging) = monthly sum of (NPp,v) x (Vp) x (LDp) x (1-Rp) x (1 - CEp,v/100) x (VOCp)

where:

CEp,v = control efficiency for propellant "p" VOC emissions and type of venting "v" for those emissions, based on venting of VOC propellant emissions to thermal incinerator or not and the VOC control efficiency of the thermal incinerator

CEp,v = 0% if propellant "p" VOC emissions are not vented to the thermal incinerator

CEp,v = 98% if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has not yet been compliance tested (98% is based on design efficiency from PTI application for emissions unit P003)

CEp,v = overall VOC control efficiency from most recent compliance test of the thermal incinerator, if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has been compliance tested (based on the 9/24/02 test, CEp,v = 96.73%)

EFp,f = emission factor for VOC propellant gas loss when filling cans with VOC propellant "p", based on propellant filler type "f" (under-the-cup fill, needle fill, or Sepro fill)

EFp,f = 0.2 cc/can for needle filling of VOC propellant "p"

EFp,f = 1.0 cc/can for Sepro filling of VOC propellant "p"

EFp,f = 1.75 cc/can for under-the-cup filling of VOC propellant "p"

Kp = conversion factor for gaseous VOC propellant "p" expressed in lbs/cc at standard conditions

LDp = liquid density of VOC propellant "p" at storage temperature and pressure, in pounds/gallon

NCp,f,v = number of cans produced with VOC propellant "p" and filling type "f" during the month by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

NPp,v = number of propellant line purges during the month for VOC propellant "p" by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

Rp = fraction by weight of purged VOC propellant "p" which is recovered and stored in a pressure tank

Vp = volume of propellant line purged for VOC propellant "p", in gallons

VOCp = fraction VOC by weight for VOC propellant "p" (usually 1 for a VOC containing propellant)

V. Testing Requirements (continued)

iii. (Alternative method to section A.V.2.c.ii)

For gasser operations equipped with a thermal incinerator in which the VOC emissions from the filling of aerosol cans with VOC propellant are vented to the thermal incinerator and the line purging of VOC propellant is recovered for use as a fuel in the thermal incinerator, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG (filling) + EG(purging) = EF * NC/1000

where:

EF = VOC emissions factor from most recent compliance test of the thermal incinerator, expressed in lbs VOC/1000 aerosol cans produced (based on the 9/24/02, EF = 0.16 lb VOC/1000 aerosol cans))

NC = number of aerosol cans produced with VOC propellant during the month

iv. EG(safety diversions) = the sum of the VOC emissions determined for each safety diversion event that is not an emergency event during the month (See section A.V.5. for information on safety diversions.)

2.d. For the manual aerosol can cleaning operation (can brushing operation), VOC emissions shall be equal to the mass of VOC solvent consumed in the operation. The monthly VOC emissions from can brushing shall be calculated as the sum of VOC emissions for all solvents consumed during that month. The VOC emissions from each VOC solvent consumed is calculated as the number of VOC solvent gallons consumed during the month times the VOC solvent density (pounds/gallon).

3. The permittee shall conduct, or have conducted, emissions testing for the thermal incinerator to demonstrate the thermal incinerator's mass emission rate and control efficiency for VOC emissions from this emissions unit's gashouse operations in accordance with the following requirements:

a. The emissions testing shall be conducted within 3 months after completed installation of the thermal incinerator, and subsequent emissions testing shall be conducted within 36 months after the previous emissions testing.

b. The emissions testing shall be conducted to determine the incinerator's mass emission rate and destruction efficiency for volatile organic compounds by means of the test method under OAC rule 3745-21-10(C) with concentration of VOC in the inlet and outlet gas streams determined by utilizing Method 25 or 25A of 40 CFR Part 60, Appendix A, and

c. The emissions testing shall be conducted to determine the VOC capture efficiency of the vapor collection system used to transport VOC emissions from the emissions unit's gashouse operations (propellant filling of aerosol cans and propellant line purging) to the thermal incinerator by means of test methods contained in Method 204 through 204E of 40CFR Part 51, Appendix M, or the alternative capture efficiency testing protocols specified in the USEPA, Office of Air Quality Planning and Standards document entitled "Guidelines for Determining Capture Efficiency," dated January 9, 1995.
.
d. The tests shall be conducted while the emissions unit's gashouse is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Office or local air agency.

V. Testing Requirements (continued)

e. The control efficiency of the thermal incinerator shall be the destruction efficiency times the capture efficiency divided by 100.

f. The mass emissions rate of the thermal incinerator, expressed in pounds VOC per 1000 aerosol cans produced, shall be the hourly mass emissions rate (lbs VOC/hour) divided by the hourly production rate (1000 cans/hour).

For the 9/24/02 compliance test of the thermal incinerator controlling the gashouse operations within emissions units P002, P003, P004, and P005, it was determined that the thermal incinerator emitted 0.16 pound VOC/1000 aerosol cans produced, demonstrated an overall control efficiency of 96.73% (destruction efficiency of 96.73% and capture efficiency of 100%), and showed a monitored combustion temperature average of 1,574 degrees F when operating at a combustion temperature set point of 1,510 degrees F for both the natural gas burner and the recovered propellant burner. The 9/24/02 compliance test comprised six 1-hour runs for emissions units P002, P003, P004, and P005 that operated at a combined production average of 19,932 cans/hour and a combined production range of 13,502 to 24,507 cans/hour.

4. For any emissions testing conducted under section A.V., the permittee shall meet the following requirements:

a. 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).

b. 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.

c. 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).

5. Safety Diversions for Gasser Operations Vented to a Thermal Incinerator.

a. A safety diversion is the venting of gasser operations directly to ambient air, instead of being vented to the thermal incinerator, in order to meet National Fire Protection Association (NFPA) 30B requirements. Under a safety diversion, the ventilation rate of the affected gashouse line is quickly increased, the gashouse line is vented immediately to ambient air (i.e., thermal incinerator is bypassed), and production activities usually continue unless there is a production shutdown due to an emergency event. Safety diversion events shall be included in the determination of compliance with the monthly VOC emission limitation of 0.75 lb VOC/1000 aerosol cans produced. The permittee shall maintain a list of criteria for safety diversions that are not emergency events and safety diversions that are emergency events.

b. The VOC emissions for a safety diversion event shall be calculated based on the average concentration of the LEL detectors associated with the gashouse line, the flow rate of the gashouse line (measured with a mass flow meter), the propellant being filled, and the length of the event (seconds).

c. The permittee shall calibrate the LEL detectors once per month following the manufacturer's protocol and shall check the flow meters once every six months for accuracy using a pitot tube.

d. For the next compliance testing of the thermal incinerator, the permittee shall conduct testing and evaluation of the accuracy of the mass flow meters. The permittee shall submit a report on such testing and evaluation at the time of the submittal of the thermal incinerator compliance test.

VI. Miscellaneous Requirements

1. Liquid Mixing Tanks: 29 Total Tanks

Mixing tanks primarily reside in Fill Room as listed. However, tanks of 350 Gal or less are portable and may be transported to other lines. Contents from any tank in a fill room may also be pumped through a hose to any other process fill line. No tank is specifically dedicated to any one process fill line.

Line 3 Fill Room:
1 Inerting Prototype / 350 Gal / Solvent/Other Material Blends
1 Tank / 1,400 Gal / Solvent/Other Material Blends
2 Tanks / @3,400 / Gal Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
3 Tanks / @350 Gal / Solvent/Other Material Blends
2 Fiberglass Tanks / @3,300 Gal / Solvent/Other Material Blends

Line 5 Fill Room:
2 Tanks / @350 Gal / Solvent/Other Material Blends
1 Tank / 250 Gal / Solvent/Other Material Blends

Line 6 & 7 Fill Room:
1 Tank / 1,400 Gal / Solvent/Other Material Blends
6 Tanks / @350 Gal / Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
2 Tanks / @1,300 Gal / Solvent/Other Material Blends
2 Tanks/ @3,300 Gal / Solvent/Other Material Blends
1 Water Heat Exch / 250 Gal / Water
1 Undercoat Tank / 150 Gal / Undercoat

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Line # 5 (P003)

Activity Description: Mixing, Filling, & Charging of Aerosol Containers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol filling line (liquid mixing, liquid filling of aerosol cans, propellant filling of aerosol cans by needle fill and Sepro fill, propellant line purging, and manual cleaning of filled aerosol cans) with the gashouse operations (propellant filling and propellant line purging) controlled by thermal incinerator (See section A.VI.1. for listing of liquid mixing tanks.)	OAC rule 3745-31-05(A)(3) PTI 13-03644 (issued 6/28/00)	Organic compound (OC) emissions from this emissions unit shall not exceed 23.7 lbs/hr and 103.80 tons/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07 and 3745-17-11.
	Findings and Orders entered into the Director's Journal on August 18, 1995 and approved by USEPA as a SIP revision for this facility (formerly Sprayon Products Incorporated) on April 25, 1996	See section A.I.2.a. below.
	OAC rule 3745-21-07(G)(2)	See section A.I.2.b. below.
	OAC rule 3745-17-11(B)(1)	During the loading of solid materials into a liquid mixing tank, particulate emissions shall not exceed 0.551 pound/hour (based on Table I).
	OAC rule 3745-17-07(A)	During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a. For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced. (Note: This includes all VOC emissions from emissions units P002 through P006. Emissions unit P001 has been shut down.)

(This VOC emissions limitation is based on a pending resolution of the facility's appeal of the August 18, 1995 Findings and Orders and a pending resolution of the facility's appeal of USEPA's April 25, 1996 approval of the August 18, 1995 Findings and Orders as a SIP revision. A revised Findings and Orders that includes such pending resolution is to be issued by the Director with appropriate public notice and submitted to USEPA as a SIP revision.)

2.b. The requirements under this rule are not applicable due to the federally enforceable, site-specific requirements, based on reasonably available control technology (RACT), contained in the 8/18/95 Director's Findings and Orders. These RACT requirements are intended to be added to OAC rule 3745-21-09 pursuant to "Section VII.: Termination" of the 8/18/95 Findings and Orders. Also, as specified within OAC rule 3745-21-07(A)(2)(a), the requirements under OAC rule 3745-21-07 shall not apply to " . . . sources which are in compliance with or specifically exempted from the applicable requirements of rule 3745-21-09 of the Administrative Code."

II. Operational Restrictions

1. When the gashouse is in VOC operation, the emissions from the gashouse shall be vented to the thermal incinerator. The gashouse is in VOC operation when either the propellant being used to fill the aerosol cans contains VOC or the propellant being purged from the propellant line contains VOC.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit's gashouse is vented to the thermal incinerator, shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency and mass emission rate of the thermal incinerator were determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record for this emissions unit the following production information each day and maintain the information at the facility:

a. number of operating hours for the aerosol filling line, and

b. number of aerosol cans produced.

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

2. The permittee shall collect and record for this emissions unit the following production information each month and maintain the information at the facility:

a. number of operating hours for the aerosol filling line (sum of daily section A.III.1.a. data);

b. number of aerosol cans produced (sum of daily section A.III.1.b. data);

c. name and amount (pounds) of each VOC liquid charged to the mixing tanks and filled into aerosol cans;

d. number of aerosol cans filled with a VOC propellant by name of propellant, type of propellant filler (under-the-cup fill, needle fill, or Sepro fill), and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

e. number of VOC propellant line purges by name of propellant and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

f. name and amount (pounds) of each VOC liquid (solvent) used in the manual aerosol can cleaning operation (can brushing operation); and

g. number of safety diversion events and number of safety diversion events that are not emergency events (see safety diversions under section A.V.5.).

3. The permittee shall collect and record for this emissions unit the following chemical and physical properties for the VOC liquids and VOC propellants used in this emissions unit:

a. for any VOC liquid used in liquid mixing and liquid filling of aerosol cans, the liquid name, the liquid density (pounds/gallon), and the vapor pressure (mm Hg) at 70 degrees F and 80 degrees F;

b. for any VOC liquid used in manual aerosol can cleaning, the liquid name and the liquid density (lbs/gal); and

c. for any VOC propellant, the liquid density (lbs/gal) under usual propellant storage temperature and pressure, the vapor density (lbs/cc) at propellant filler temperature, and the fraction VOC by weight.

4. The permittee shall calculate and record for each month the following information for this emissions unit:

a. monthly amount of VOC emissions (pounds) from the liquid mixing operation, in accordance with section A.V.2.a.;

b. monthly amount of VOC emissions (pounds) from the liquid filling operation, in accordance with section A.V.2.b.;

c. monthly amount of VOC emissions (pounds) from the gashouse operations (propellant filling, propellant line purging, and safety diversions), in accordance with section A.V.2.c.;

d. monthly amount of VOC emissions (pounds) from the manual aerosol can cleaning operation (can brushing operation), in accordance with section A.V.2.d.;

e. monthly number of aerosol cans produced (sum of daily section A.III.1.b. data);

f. monthly amount of VOC emissions (pounds) from this emissions unit, which is the sum of data recorded under sections A.III.4.a., A.III.4.b., A.III.4.c., and A.III.4.d. for this emissions unit;

g. VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.i*.; and

h. average hourly amount of VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.ii*.

* Unless no longer required pursuant to section A.V.1.b.iv.

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

5. The permittee shall calculate and record for each month the following information for emissions units P002 through P006:

a. monthly amount of VOC emissions (pounds), which is a sum of the monthly VOC emissions recorded under section A.III.4.f. of the part III terms and conditions for emissions units P002 through P005 plus the monthly VOC emissions recorded under section A.III.2. of the part III terms and conditions for emissions unit P006;

b. monthly number of aerosol cans produced, which is a sum of the monthly aerosol can production recorded under section A.III.4.e. of the part III terms and conditions for emissions units P002 through P005;

c. monthly VOC emissions rate in pound/1000 cans, which is 1000 times the value from section A.III. 5.a. divided by the value from section A.III.5.b., and rounded to two decimal places;

d. amount of VOC emissions (pounds) during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.a. for this month and the previous 11 consecutive months;

e. number of aerosol can produced during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.b. for this month and the previous 11 consecutive months; and

f. VOC emissions rate during the rolling 12-month period in pound/1000 cans, which is 1000 times the value from section A.III. 5.d. divided by the value from section A.III.5.e., and rounded to two decimal places.

6. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit's gashouse is in VOC operation. Temperature shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day of gashouse operation:

a. a log of operating time for each of the following: gashouse ventilation to the thermal incinerator, gashouse ventilation directly to ambient air, thermal incinerator operation, temperature monitoring equipment operation, gashouse in VOC operation, and gashouse not in VOC operation;

b. a log of all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit's gashouse is in VOC operation, was more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency of the thermal incinerator was determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.; and

c. a log of the dates and times of the bypass venting of gashouse emissions to ambient air (see safety diversions under section A.V.5.) and any downtime for the thermal incinerator and temperature monitoring equipment, when the emissions unit's gashouse is in VOC operation.

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

7. Visible Emissions from Mixing Tanks

a. The permittee shall perform weekly checks, when pigment is added to the mixing tanks of this emissions unit and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving the mixing tanks. 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:

i. the color of the emissions;

ii. whether the emissions are representative of normal operations;

iii. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

iv. the total duration of any visible emissions incident; and

v. any corrective actions taken to eliminate the visible emissions.

b. In the event of two consecutive quarters in which no visible emissions are observed under section A.III.7.a. for all mixing tanks of this emissions unit, the permittee can elect to perform checks for visible emissions on a monthly basis in the manner described under section A.III.7.a. If visible emissions are subsequently observed during any month, the permittee shall immediately go back to checks for visible emissions during each week as described under section A.III.7.a, and the permittee may again elect to use the provisions under this section.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any emissions rate recorded under section A.III.5.f. for a rolling 12-month period which exceeds 0.75 lb VOC/1000 cans produced. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the deviations recorded under sections A.III.6.b. and A.III.6.c. These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

3. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly summaries of the records specified under sections A.III.2., A.III.3., A.III.4., and A.III.5. These quarterly summaries shall be submitted by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

4. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly written reports of the records specified under section A.III.7. which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These quarterly reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I. of these terms and conditions shall be determined as follows:

V. Testing Requirements (continued)

1.a. Emission Limitation:
For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced.

Applicable Compliance Method:
Compliance shall be demonstrated by means of:

i. record keeping specified in sections A.III.2., A.III.3., A.III.4., and A.III.5. of the part III terms and conditions of emissions units P002 through P005;

ii. record keeping specified in sections A.III.1., A.III.2., and A.III.3. of the part III terms and conditions of emissions unit P006;

iii. calculating the VOC emissions rate for the mixing tanks (mixing operations), can liquid filling operations, gasser operations (gashouse operations), can brushing operations (manual can cleaning), and can piercing operations at this facility, as specified in section A.V.2. of the part III terms and conditions of emissions units P002 through P006;

iv. testing the thermal incinerator, as specified in A.V.3. of the part III terms and conditions of emissions units P002 through P005; and

v. operating and maintaining a continuous temperature monitor and recorder for the thermal incinerator and maintaining a log of gashouse operations, as specified in section A.III.6. of the part III terms and conditions of emissions units P002 through P005.

In the event additional emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

1.b. Emission Limitation:
Organic compound (OC) emissions from this emissions unit shall not exceed 23.7 lbs/hr and 103.80 tons/year.

Applicable Compliance Method:
Compliance shall be demonstrated by calculating the worst case hourly emissions. Hour by hour calculations are not necessary as long as the worst case hourly calculation shows compliance. The worst case hourly OC emissions shall be calculated for each operation within this emissions unit as described in section A.V.2., however, OC should replace VOC for all materials and emissions and maximum hourly usage of liquids and propellants should replace monthly usage of those materials. Compliance with the OC emissions limit of 23.7 lbs/hr ensures compliance with the OC emissions limit of 103.80 tons/year, based on multiplying 23.7 lbs/hr by 8,760 hrs/year and dividing by 2000 lbs/ton.

The worst case hourly OC emissions calculations shall be documented and submitted annually to the appropriate Ohio EPA District Office or local air agency.

In the event emissions testing is required to demonstrate compliance, the OC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

V. Testing Requirements (continued)

1.c. Emission Limitation:
Particulate emissions shall not exceed 0.551 pound/hour during the loading of solid materials into a liquid mixing tank.

Applicable Compliance Method:
The liquid mixing tanks for this emissions unit are similar to the mixing tanks at paint manufacturing facilities in which the particulate emissions are estimated to be 0.5 to 1.0 percent of the pigment handled, based on USEPA reference document AP-42: Compilation of Air Pollutant Emission Factors, Fifth Edition (Table 6.4-1 which has a "C" emission factor rating). This facility infrequently adds some pigment to the liquid mixing tanks, and such infrequent and low usage of pigment would not normally cause a particulate emissions to exceed this emissions limitation. Compliance with the visible particulate emissions limitation under section A.III.V.1.d. provides further assurance of compliance of this emissions limitation.

In the event testing is required to demonstrate compliance, the particulate emissions shall be determined by Method 5, 40 CFR 60, Appendix A.

1.d. Emission Limitation:
During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in section A.III.7. and the reporting in section A.IV.4.

In the event testing is required to demonstrate compliance, the visible emissions shall be determined by OAC rule 3745-17-03(B)(1).

2. The VOC emission calculations for this facility were taken in part from the permittee's Air Pollution Emission Model. The VOC emissions from this emissions unit shall be calculated as follows:

2.a. For liquid mixing operations, the monthly VOC emissions (pounds), E(mixing), shall be calculated as follows:

i. E(mixing) = Ei(loading) + Ei(venting)

where:

E(loading) = monthly VOC emissions from loading VOC liquids into mixing tanks

E(venting) = monthly VOC emissions from venting VOC liquids during mixing .

ii. For loading VOC liquid into a mixing tank, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(loading) = monthly sum of Ei(loading) for all VOC liquid "i" loaded into mixing tanks

Ei(loading) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(loading) = lbs of VOC emissions during the month from loading VOC liquid "i" into mixing tanks

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi = volume of VOC liquid "i" charged to mixing tanks during the month in cubic feet (equals monthly gallons of liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

V. Testing Requirements (continued)

iii. For venting of VOC liquids during mixing, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and venting of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(venting) = monthly sum of Ei(venting) for all VOC liquid "i" loaded into mixing tanks

Ei(venting) = Pi * Xi * Vi,v * MWi / (R * T)

where:

Ei(venting) = lbs of VOC emissions during the month for venting a VOC liquid "i" during mixing

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi,v = volume (cu ft) of saturated vapors removed by the ventilation system during mixing of VOC liquid "i" (equals monthly gallons of VOC liquid "i" times 5*30/350 based on 5% of the total ventilation flow rate or 5 cu ft/min, an average mixing time of 30 minutes per batch, and a typical batch size of 350 gallons)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

iv. (Alternative method to sections A.V.2.a.i through A.V.2.a.iii)

An alternative method for calculating the monthly emissions rate for liquid mixing operations shall be as follows

E(mixing) = EFM * V(mixing)

where:

EFM = emission factor of 0.00131 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for mixing operations during 1997 to 2000.)

V(mixing) = monthly throughput of VOC liquid employed for mixing, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in sections A.V.2.a.i through A.V.2.a.iii. shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.b. i. For the liquid filling of aerosol cans, the monthly VOC emissions (pounds) shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 70 degrees F (21 degrees C) as follows:

E(filling) = monthly sum of Ei(filling) for all VOC liquid "i" filling of aerosol cans

Ei(filling) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(filling) = lbs of VOC emissions during the month for VOC liquid "i" filling of aerosol cans

Pi = vapor pressure of VOC liquid "i" at 70 degrees F, in mmHg

Vi = volume of VOC liquid "i" filled into aerosol cans during the month in cubic feet (equals monthly gallons of VOC liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 21 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

ii. (Alternative method to section A.V.2.b.i)

An alternative method for calculating the monthly emissions for liquid can filling operations shall be as follows:

E(filling) = EFF * V(filling)

where:

EFF = emission factor of 0.00026 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for liquid can filling operations during 1997 to 2000.)

V(filling) = monthly throughput of VOC liquid employed for can filling, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in section A.V.2.b.i shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.c. For the gasser (gashouse) operations, the monthly VOC emissions (pounds), EG(total), shall be calculated as follows:

i. EG(total) = EG(filling) + EG(purging) + EG(safety diversions)

where:

EG(filling) = monthly VOC emissions from filling aerosol cans with VOC propellant

EP(purging) = monthly VOC emissions from purging of lines containing VOC propellant

EG(safety diversions) = monthly VOC emissions from safety diversions of VOC control equipment

ii. For the filling of aerosol cans with VOC propellant and the purging of lines containing VOC propellant, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG(filling) = monthly sum of (NCp,f,v) x (EFp,f) x (Kp) x (1 - CEp,v/100) x (VOCp)

EP(purging) = monthly sum of (NPp,v) x (Vp) x (LDp) x (1-Rp) x (1 - CEp,v/100) x (VOCp)

where:

CEp,v = control efficiency for propellant "p" VOC emissions and type of venting "v" for those emissions, based on venting of VOC propellant emissions to thermal incinerator or not and the VOC control efficiency of the thermal incinerator

CEp,v = 0% if propellant "p" VOC emissions are not vented to the thermal incinerator

CEp,v = 98% if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has not yet been compliance tested (98% is based on design efficiency from PTI application for emissions unit P003)

CEp,v = overall VOC control efficiency from most recent compliance test of the thermal incinerator, if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has been compliance tested (based on the 9/24/02 test, CEp,v = 96.73%)

EFp,f = emission factor for VOC propellant gas loss when filling cans with VOC propellant "p", based on propellant filler type "f" (under-the-cup fill, needle fill, or Sepro fill)

EFp,f = 0.2 cc/can for needle filling of VOC propellant "p"

EFp,f = 1.0 cc/can for Sepro filling of VOC propellant "p"

EFp,f = 1.75 cc/can for under-the-cup filling of VOC propellant "p"

Kp = conversion factor for gaseous VOC propellant "p" expressed in lbs/cc at standard conditions

LDp = liquid density of VOC propellant "p" at storage temperature and pressure, in pounds/gallon

NCp,f,v = number of cans produced with VOC propellant "p" and filling type "f" during the month by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

NPp,v = number of propellant line purges during the month for VOC propellant "p" by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

Rp = fraction by weight of purged VOC propellant "p" which is recovered and stored in a pressure tank

Vp = volume of propellant line purged for VOC propellant "p", in gallons

VOCp = fraction VOC by weight for VOC propellant "p" (usually 1 for a VOC containing propellant)

V. Testing Requirements (continued)

iii. (Alternative method to section A.V.2.c.ii)

For gasser operations equipped with a thermal incinerator in which the VOC emissions from the filling of aerosol cans with VOC propellant are vented to the thermal incinerator and the line purging of VOC propellant is recovered for use as a fuel in the thermal incinerator, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG (filling) + EG(purging) = EF * NC/1000

where:

EF = VOC emissions factor from most recent compliance test of the thermal incinerator, expressed in lbs VOC/1000 aerosol cans produced (based on the 9/24/02, EF = 0.16 lb VOC/1000 aerosol cans))

NC = number of aerosol cans produced with VOC propellant during the month

iv. EG(safety diversions) = the sum of the VOC emissions determined for each safety diversion event that is not an emergency event during the month (See section A.V.5. for information on safety diversions.)

2.d. For the manual aerosol can cleaning operation (can brushing operation), VOC emissions shall be equal to the mass of VOC solvent consumed in the operation. The monthly VOC emissions from can brushing shall be calculated as the sum of VOC emissions for all solvents consumed during that month. The VOC emissions from each VOC solvent consumed is calculated as the number of VOC solvent gallons consumed during the month times the VOC solvent density (pounds/gallon).

3. The permittee shall conduct, or have conducted, emissions testing for the thermal incinerator to demonstrate the thermal incinerator's mass emission rate and control efficiency for VOC emissions from this emissions unit's gashouse operations in accordance with the following requirements:

a. The emissions testing shall be conducted within 3 months after completed installation of the thermal incinerator, and subsequent emissions testing shall be conducted within 36 months after the previous emissions testing.

b. The emissions testing shall be conducted to determine the incinerator's mass emission rate and destruction efficiency for volatile organic compounds by means of the test method under OAC rule 3745-21-10(C) with concentration of VOC in the inlet and outlet gas streams determined by utilizing Method 25 or 25A of 40 CFR Part 60, Appendix A, and

c. The emissions testing shall be conducted to determine the VOC capture efficiency of the vapor collection system used to transport VOC emissions from the emissions unit's gashouse operations (propellant filling of aerosol cans and propellant line purging) to the thermal incinerator by means of test methods contained in Method 204 through 204E of 40CFR Part 51, Appendix M, or the alternative capture efficiency testing protocols specified in the USEPA, Office of Air Quality Planning and Standards document entitled "Guidelines for Determining Capture Efficiency," dated January 9, 1995.
.
d. The tests shall be conducted while the emissions unit's gashouse is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Office or local air agency.

V. Testing Requirements (continued)

e. The control efficiency of the thermal incinerator shall be the destruction efficiency times the capture efficiency divided by 100.

f. The mass emissions rate of the thermal incinerator, expressed in pounds VOC per 1000 aerosol cans produced, shall be the hourly mass emissions rate (lbs VOC/hour) divided by the hourly production rate (1000 cans/hour).

For the 9/24/02 compliance test of the thermal incinerator controlling the gashouse operations within emissions units P002, P003, P004, and P005, it was determined that the thermal incinerator emitted 0.16 pound VOC/1000 aerosol cans produced, demonstrated an overall control efficiency of 96.73% (destruction efficiency of 96.73% and capture efficiency of 100%), and showed a monitored combustion temperature average of 1,574 degrees F when operating at a combustion temperature set point of 1,510 degrees F for both the natural gas burner and the recovered propellant burner. The 9/24/02 compliance test comprised six 1-hour runs for emissions units P002, P003, P004, and P005 that operated at a combined production average of 19,932 cans/hour and a combined production range of 13,502 to 24,507 cans/hour.

4. For any emissions testing conducted under section A.V., the permittee shall meet the following requirements:

a. 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).

b. 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.

c. 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).

5. Safety Diversions for Gasser Operations Vented to a Thermal Incinerator.

a. A safety diversion is the venting of gasser operations directly to ambient air, instead of being vented to the thermal incinerator, in order to meet National Fire Protection Association (NFPA) 30B requirements. Under a safety diversion, the ventilation rate of the affected gashouse line is quickly increased, the gashouse line is vented immediately to ambient air (i.e., thermal incinerator is bypassed), and production activities usually continue unless there is a production shutdown due to an emergency event. Safety diversion events shall be included in the determination of compliance with the monthly VOC emission limitation of 0.75 lb VOC/1000 aerosol cans produced. The permittee shall maintain a list of criteria for safety diversions that are not emergency events and safety diversions that are emergency events.

b. The VOC emissions for a safety diversion event shall be calculated based on the average concentration of the LEL detectors associated with the gashouse line, the flow rate of the gashouse line (measured with a mass flow meter), the propellant being filled, and the length of the event (seconds).

c. The permittee shall calibrate the LEL detectors once per month following the manufacturer's protocol and shall check the flow meters once every six months for accuracy using a pitot tube.

d. For the next compliance testing of the thermal incinerator, the permittee shall conduct testing and evaluation of the accuracy of the mass flow meters. The permittee shall submit a report on such testing and evaluation at the time of the submittal of the thermal incinerator compliance test.

VI. Miscellaneous Requirements

1. Liquid Mixing Tanks: 29 Total Tanks

Mixing tanks primarily reside in Fill Room as listed. However, tanks of 350 Gal or less are portable and may be transported to other lines. Contents from any tank in a fill room may also be pumped through a hose to any other process fill line. No tank is specifically dedicated to any one process fill line.

Line 3 Fill Room:
1 Inerting Prototype / 350 Gal / Solvent/Other Material Blends
1 Tank / 1,400 Gal / Solvent/Other Material Blends
2 Tanks / @3,400 / Gal Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
3 Tanks / @350 Gal / Solvent/Other Material Blends
2 Fiberglass Tanks / @3,300 Gal / Solvent/Other Material Blends

Line 5 Fill Room:
2 Tanks / @350 Gal / Solvent/Other Material Blends
1 Tank / 250 Gal / Solvent/Other Material Blends

Line 6 & 7 Fill Room:
1 Tank / 1,400 Gal / Solvent/Other Material Blends
6 Tanks / @350 Gal / Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
2 Tanks / @1,300 Gal / Solvent/Other Material Blends
2 Tanks/ @3,300 Gal / Solvent/Other Material Blends
1 Water Heat Exch / 250 Gal / Water
1 Undercoat Tank / 150 Gal / Undercoat

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol filling line (liquid mixing, liquid filling of aerosol cans, propellant filling of aerosol cans by needle fill and Sepro fill, propellant line purging, and manual cleaning of filled aerosol cans) with the gashouse operations (propellant filling and propellant line purging) controlled by thermal incinerator		

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The permit to install for this emissions unit P003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene
TLV (ug/m3): 188,500
Maximum Hourly Emission Rate (lbs/hr): 0.527
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence Line (ug/m3): 73.85
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4488

Pollutant: MEK
TLV (ug/m3): 590,000
Maximum Hourly Emission Rate (lbs/hr): 0.221
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence Line (ug/m3): 31.33
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 14048

Pollutant: Hexane
TLV (ug/m3):176,500
Maximum Hourly Emission Rate (lbs/hr): 0.524
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence Line (ug/m3): 73.85
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4202

Pollutant: Perchloroethylene
TLV (ug/m3): 169,500
Maximum Hourly Emission Rate (lbs/hr): 0.200
Predicted 1 Hour Maximum Ground-Level Concentration at the Fence Line (ug/m3): 27.97
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4036

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

II. Operational Restrictions (continued)

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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: Line # 6 (P004)

Activity Description: Mixing, Filling, & Charging of Aerosol Containers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol filling line (liquid mixing, liquid filling of aerosol cans, propellant filling of aerosol cans by under-the-cup fill, propellant line purging, and manual cleaning of filled aerosol cans) with the gashouse operations (propellant filling and propellant line purging) controlled by thermal incinerator (See section A.VI.1. for listing of liquid mixing tanks.)	OAC rule 3745-31-05(A)(3) PTI 13-3186 (issued 02/26/97, and modified 04/30/97)	Volatile organic compound (VOC) emissions from liquid filling of aerosol cans shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07 and 3745-17-11.
	Findings and Orders entered into the Director's Journal on August 18, 1995 and approved by USEPA as a SIP revision for this facility (formerly Sprayon Products Incorporated) on April 25, 1996	See section A.I.2.a. below.
	OAC rule 3745-21-07(G)(2)	See section A.I.2.b. below.
	OAC rule 3745-17-11(B)(1)	During the loading of solid materials into a liquid mixing tank, particulate emissions shall not exceed 0.551 pound/hour (based on Table I).
	OAC rule 3745-17-07(A)	During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a. For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced. (Note: This includes all VOC emissions from emissions units P002 through P006. Emissions unit P001 has been shut down.)

(This VOC emissions limitation is based on a pending resolution of the facility's appeal of the August 18, 1995 Findings and Orders and a pending resolution of the facility's appeal of USEPA's April 25, 1996 approval of the August 18, 1995 Findings and Orders as a SIP revision. A revised Findings and Orders that includes such pending resolution is to be issued by the Director with appropriate public notice and submitted to USEPA as a SIP revision.)

2.b. The requirements under this rule are not applicable due to the federally enforceable, site-specific requirements, based on reasonably available control technology (RACT), contained in the 8/18/95 Director's Findings and Orders. These RACT requirements are intended to be added to OAC rule 3745-21-09 pursuant to "Section VII.: Termination" of the 8/18/95 Findings and Orders. Also, as specified within OAC rule 3745-21-07(A)(2)(a), the requirements under OAC rule 3745-21-07 shall not apply to " . . . sources which are in compliance with or specifically exempted from the applicable requirements of rule 3745-21-09 of the Administrative Code."

II. Operational Restrictions

1. When the gashouse is in VOC operation, the emissions from the gashouse shall be vented to the thermal incinerator. The gashouse is in VOC operation when either the propellant being used to fill the aerosol cans contains VOC or the propellant being purged from the propellant line contains VOC.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit's gashouse is vented to the thermal incinerator, shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency and mass emission rate of the thermal incinerator were determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record for this emissions unit the following production information each day and maintain the information at the facility:

a. number of operating hours for the aerosol filling line, and

b. number of aerosol cans produced.

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

2. The permittee shall collect and record for this emissions unit the following production information each month and maintain the information at the facility:

a. number of operating hours for the aerosol filling line (sum of daily section A.III.1.a. data);

b. number of aerosol cans produced (sum of daily section A.III.1.b. data);

c. name and amount (pounds) of each VOC liquid charged to the mixing tanks and filled into aerosol cans;

d. number of aerosol cans filled with a VOC propellant by name of propellant, type of propellant filler (under-the-cup fill, needle fill, or Sepro fill), and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

e. number of VOC propellant line purges by name of propellant and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

f. name and amount (pounds) of each VOC liquid (solvent) used in the manual aerosol can cleaning operation (can brushing operation); and

g. number of safety diversion events and number of safety diversion events that are not emergency events (see safety diversions under section A.V.5.).

3. The permittee shall collect and record for this emissions unit the following chemical and physical properties for the VOC liquids and VOC propellants used in this emissions unit:

a. for any VOC liquid used in liquid mixing and liquid filling of aerosol cans, the liquid name, the liquid density (pounds/gallon), and the vapor pressure (mm Hg) at 70 degrees F and 80 degrees F;

b. for any VOC liquid used in manual aerosol can cleaning, the liquid name and the liquid density (lbs/gal); and

c. for any VOC propellant, the liquid density (lbs/gal) under usual propellant storage temperature and pressure, the vapor density (lbs/cc) at propellant filler temperature, and the fraction VOC by weight.

4. The permittee shall calculate and record for each month the following information for this emissions unit:

a. monthly amount of VOC emissions (pounds) from the liquid mixing operation, in accordance with section A.V.2.a.;

b. monthly amount of VOC emissions (pounds) from the liquid filling operation, in accordance with section A.V.2.b.;

c. monthly amount of VOC emissions (pounds) from the gashouse operations (propellant filling, propellant line purging, and safety diversions), in accordance with section A.V.2.c.;

d. monthly amount of VOC emissions (pounds) from the manual aerosol can cleaning operation (can brushing operation), in accordance with section A.V.2.d.;

e. monthly number of aerosol cans produced (sum of daily section A.III.1.b. data);

f. monthly amount of VOC emissions (pounds) from this emissions unit, which is the sum of data recorded under sections A.III.4.a., A.III.4.b., A.III.4.c., and A.III.4.d. for this emissions unit;

g. VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.i*.; and

h. average hourly amount of VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.ii*.

* Unless no longer required pursuant to section A.V.1.b.iv.

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

5. The permittee shall calculate and record for each month the following information for emissions units P002 through P006:

a. monthly amount of VOC emissions (pounds), which is a sum of the monthly VOC emissions recorded under section A.III.4.f. of the part III terms and conditions for emissions units P002 through P005 plus the monthly VOC emissions recorded under section A.III.2. of the part III terms and conditions for emissions unit P006;

b. monthly number of aerosol cans produced, which is a sum of the monthly aerosol can production recorded under section A.III.4.e. of the part III terms and conditions for emissions units P002 through P005;

c. monthly VOC emissions rate in pound/1000 cans, which is 1000 times the value from section A.III. 5.a. divided by the value from section A.III.5.b., and rounded to two decimal places;

d. amount of VOC emissions (pounds) during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.a. for this month and the previous 11 consecutive months;

e. number of aerosol can produced during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.b. for this month and the previous 11 consecutive months; and

f. VOC emissions rate during the rolling 12-month period in pound/1000 cans, which is 1000 times the value from section A.III. 5.d. divided by the value from section A.III.5.e., and rounded to two decimal places.

6. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit's gashouse is in VOC operation. Temperature shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day of gashouse operation:

a. a log of operating time for each of the following: gashouse ventilation to the thermal incinerator, gashouse ventilation directly to ambient air, thermal incinerator operation, temperature monitoring equipment operation, gashouse in VOC operation, and gashouse not in VOC operation;

b. a log of all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit's gashouse is in VOC operation, was more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency of the thermal incinerator was determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.; and

c. a log of the dates and times of the bypass venting of gashouse emissions to ambient air (see safety diversions under section A.V.5.) and any downtime for the thermal incinerator and temperature monitoring equipment, when the emissions unit's gashouse is in VOC operation.

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

7. Visible Emissions from Mixing Tanks

a. The permittee shall perform weekly checks, when pigment is added to the mixing tanks of this emissions unit and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving the mixing tanks. 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:

i. the color of the emissions;

ii. whether the emissions are representative of normal operations;

iii. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

iv. the total duration of any visible emissions incident; and

v. any corrective actions taken to eliminate the visible emissions.

b. In the event of two consecutive quarters in which no visible emissions are observed under section A.III.7.a. for all mixing tanks of this emissions unit, the permittee can elect to perform checks for visible emissions on a monthly basis in the manner described under section A.III.7.a. If visible emissions are subsequently observed during any month, the permittee shall immediately go back to checks for visible emissions during each week as described under section A.III.7.a, and the permittee may again elect to use the provisions under this section.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the emission rate exceedances identified below.

a. Emissions rate recorded under section A.III.5.f. for a rolling 12-month period exceeds 0.75 lb VOC/1000 cans produced.

b. Emissions rate recorded under section A.III.4.h. exceeds 8 lbs VOC/hr.

c. Emissions rate recorded under section A.III.4.g. exceeds 40 lbs VOC/day.

These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the deviations recorded under sections A.III.6.b. and A.III.6.c. These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

3. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly summaries of the records specified under sections A.III.2., A.III.3., A.III.4., and A.III.5. These quarterly summaries shall be submitted by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

4. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly written reports of the records specified under section A.III.7. which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These quarterly reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I. of these terms and conditions shall be determined as follows:

V. Testing Requirements (continued)

1.a. Emission Limitation:
For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced.

Applicable Compliance Method:
Compliance shall be demonstrated by means of:

i. record keeping specified in sections A.III.2., A.III.3., A.III.4., and A.III.5. of the part III terms and conditions of emissions units P002 through P005;

ii. record keeping specified in sections A.III.1., A.III.2., and A.III.3. of the part III terms and conditions of emissions unit P006;

iii. calculating the VOC emissions rate for the mixing tanks (mixing operations), can liquid filling operations, gasser operations (gashouse operations), can brushing operations (manual can cleaning), and can piercing operations at this facility, as specified in section A.V.2. of the part III terms and conditions of emissions units P002 through P006;

iv. testing the thermal incinerator, as specified in A.V.3. of the part III terms and conditions of emissions units P002 through P005; and

v. operating and maintaining a continuous temperature monitor and recorder for the thermal incinerator and maintaining a log of gashouse operations, as specified in section A.III.6. of the part III terms and conditions of emissions units P002 through P005.

In the event additional emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

1.b. Emission Limitation:
Volatile organic compound (VOC) emissions from liquid mixing and liquid filling shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and by calculating VOC emissions from can liquid filling as follows:

i. VOC emissions for each day in the month shall be calculated as (sum of monthly VOC emissions, in pounds, from section A.IV.4.b..) x (number of aerosol cans produced that day)/(total number of aerosol cans produced during the month).

ii. VOC emissions for each hour in the day shall be an hourly average VOC emission that is calculated as (daily VOC emissions from section A.V.1.b.i.)/(operating hours in that day).

iii. VOC emissions for the year are not needed to demonstrate compliance because the annual VOC emissions limit of 7.3 tons/year is not more stringent than the daily VOC limit multiplied by 365 days per year.

iv. In the event the permittee demonstrates to the satisfaction of the Director that the VOC emissions from can liquid filling cannot exceed 8 lbs/hr and 40 lbs/day on a worst case emissions basis for the various types of liquids being filled and the maximum liquid filling rate achievable by the fillers, the recordkeeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and the calculations in sections A.V.1.b.i. and A.V.1.b.ii. shall no longer be required for demonstrating compliance with these emissions limitations. The continued applicability of such worst case calculations shall be documented and submitted annually to the appropriate Ohio EPA District Office or local air agency

In the event emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

V. Testing Requirements (continued)

1.c. Emission Limitation:
Particulate emissions shall not exceed 0.551 pound/hour during the loading of solid materials into a liquid mixing tank.

Applicable Compliance Method:
The liquid mixing tanks for this emissions unit are similar to the mixing tanks at paint manufacturing facilities in which the particulate emissions are estimated to be 0.5 to 1.0 percent of the pigment handled, based on USEPA reference document AP-42: Compilation of Air Pollutant Emission Factors, Fifth Edition (Table 6.4-1 which has a "C" emission factor rating). This facility infrequently adds some pigment to the liquid mixing tanks, and such infrequent and low usage of pigment would not normally cause a particulate emissions to exceed this emissions limitation. Compliance with the visible particulate emissions limitation under section A.III.V.1.d. provides further assurance of compliance of this emissions limitation.

In the event testing is required to demonstrate compliance, the particulate emissions shall be determined by Method 5, 40 CFR 60, Appendix A.

1.d. Emission Limitation:
During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in section A.III.7. and the reporting in section A.IV.4.

In the event testing is required to demonstrate compliance, the visible emissions shall be determined by OAC rule 3745-17-03(B)(1).

2. The VOC emission calculations for this facility were taken in part from the permittee's Air Pollution Emission Model. The VOC emissions from this emissions unit shall be calculated as follows:

2.a. For liquid mixing operations, the monthly VOC emissions (pounds), E(mixing), shall be calculated as follows:

i. E(mixing) = Ei(loading) + Ei(venting)

where:

E(loading) = monthly VOC emissions from loading VOC liquids into mixing tanks

E(venting) = monthly VOC emissions from venting VOC liquids during mixing .

ii. For loading VOC liquid into a mixing tank, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(loading) = monthly sum of Ei(loading) for all VOC liquid "i" loaded into mixing tanks

Ei(loading) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(loading) = lbs of VOC emissions during the month from loading VOC liquid "i" into mixing tanks

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi = volume of VOC liquid "i" charged to mixing tanks during the month in cubic feet (equals monthly gallons of liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

V. Testing Requirements (continued)

iii. For venting of VOC liquids during mixing, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and venting of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(venting) = monthly sum of Ei(venting) for all VOC liquid "i" loaded into mixing tanks

Ei(venting) = Pi * Xi * Vi,v * MWi / (R * T)

where:

Ei(venting) = lbs of VOC emissions during the month for venting a VOC liquid "i" during mixing

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi,v = volume (cu ft) of saturated vapors removed by the ventilation system during mixing of VOC liquid "i" (equals monthly gallons of VOC liquid "i" times 5*30/350 based on 5% of the total ventilation flow rate or 5 cu ft/min, an average mixing time of 30 minutes per batch, and a typical batch size of 350 gallons)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

iv. (Alternative method to sections A.V.2.a.i through A.V.2.a.iii)

An alternative method for calculating the monthly emissions rate for liquid mixing operations shall be as follows

E(mixing) = EFM * V(mixing)

where:

EFM = emission factor of 0.00131 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for mixing operations during 1997 to 2000.)

V(mixing) = monthly throughput of VOC liquid employed for mixing, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in sections A.V.2.a.i through A.V.2.a.iii. shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.b. i. For the liquid filling of aerosol cans, the monthly VOC emissions (pounds) shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 70 degrees F (21 degrees C) as follows:

E(filling) = monthly sum of Ei(filling) for all VOC liquid "i" filling of aerosol cans

Ei(filling) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(filling) = lbs of VOC emissions during the month for VOC liquid "i" filling of aerosol cans

Pi = vapor pressure of VOC liquid "i" at 70 degrees F, in mmHg

Vi = volume of VOC liquid "i" filled into aerosol cans during the month in cubic feet (equals monthly gallons of VOC liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 21 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

ii. (Alternative method to section A.V.2.b.i)

An alternative method for calculating the monthly emissions for liquid can filling operations shall be as follows:

E(filling) = EFF * V(filling)

where:

EFF = emission factor of 0.00026 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for liquid can filling operations during 1997 to 2000.)

V(filling) = monthly throughput of VOC liquid employed for can filling, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in section A.V.2.b.i shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.c. For the gasser (gashouse) operations, the monthly VOC emissions (pounds), EG(total), shall be calculated as follows:

i. EG(total) = EG(filling) + EG(purging) + EG(safety diversions)

where:

EG(filling) = monthly VOC emissions from filling aerosol cans with VOC propellant

EP(purging) = monthly VOC emissions from purging of lines containing VOC propellant

EG(safety diversions) = monthly VOC emissions from safety diversions of VOC control equipment

ii. For the filling of aerosol cans with VOC propellant and the purging of lines containing VOC propellant, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG(filling) = monthly sum of (NCp,f,v) x (EFp,f) x (Kp) x (1 - CEp,v/100) x (VOCp)

EP(purging) = monthly sum of (NPp,v) x (Vp) x (LDp) x (1-Rp) x (1 - CEp,v/100) x (VOCp)

where:

CEp,v = control efficiency for propellant "p" VOC emissions and type of venting "v" for those emissions, based on venting of VOC propellant emissions to thermal incinerator or not and the VOC control efficiency of the thermal incinerator

CEp,v = 0% if propellant "p" VOC emissions are not vented to the thermal incinerator

CEp,v = 98% if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has not yet been compliance tested (98% is based on design efficiency from PTI application for emissions unit P003)

CEp,v = overall VOC control efficiency from most recent compliance test of the thermal incinerator, if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has been compliance tested (based on the 9/24/02 test, CEp,v = 96.73%)

EFp,f = emission factor for VOC propellant gas loss when filling cans with VOC propellant "p", based on propellant filler type "f" (under-the-cup fill, needle fill, or Sepro fill)

EFp,f = 0.2 cc/can for needle filling of VOC propellant "p"

EFp,f = 1.0 cc/can for Sepro filling of VOC propellant "p"

EFp,f = 1.75 cc/can for under-the-cup filling of VOC propellant "p"

Kp = conversion factor for gaseous VOC propellant "p" expressed in lbs/cc at standard conditions

LDp = liquid density of VOC propellant "p" at storage temperature and pressure, in pounds/gallon

NCp,f,v = number of cans produced with VOC propellant "p" and filling type "f" during the month by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

NPp,v = number of propellant line purges during the month for VOC propellant "p" by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

Rp = fraction by weight of purged VOC propellant "p" which is recovered and stored in a pressure tank

Vp = volume of propellant line purged for VOC propellant "p", in gallons

VOCp = fraction VOC by weight for VOC propellant "p" (usually 1 for a VOC containing propellant)

V. Testing Requirements (continued)

iii. (Alternative method to section A.V.2.c.ii)

For gasser operations equipped with a thermal incinerator in which the VOC emissions from the filling of aerosol cans with VOC propellant are vented to the thermal incinerator and the line purging of VOC propellant is recovered for use as a fuel in the thermal incinerator, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG (filling) + EG(purging) = EF * NC/1000

where:

EF = VOC emissions factor from most recent compliance test of the thermal incinerator, expressed in lbs VOC/1000 aerosol cans produced (based on the 9/24/02, EF = 0.16 lb VOC/1000 aerosol cans))

NC = number of aerosol cans produced with VOC propellant during the month

iv. EG(safety diversions) = the sum of the VOC emissions determined for each safety diversion event that is not an emergency event during the month (See section A.V.5. for information on safety diversions.)

2.d. For the manual aerosol can cleaning operation (can brushing operation), VOC emissions shall be equal to the mass of VOC solvent consumed in the operation. The monthly VOC emissions from can brushing shall be calculated as the sum of VOC emissions for all solvents consumed during that month. The VOC emissions from each VOC solvent consumed is calculated as the number of VOC solvent gallons consumed during the month times the VOC solvent density (pounds/gallon).

3. The permittee shall conduct, or have conducted, emissions testing for the thermal incinerator to demonstrate the thermal incinerator's mass emission rate and control efficiency for VOC emissions from this emissions unit's gashouse operations in accordance with the following requirements:

a. The emissions testing shall be conducted within 3 months after completed installation of the thermal incinerator, and subsequent emissions testing shall be conducted within 36 months after the previous emissions testing.

b. The emissions testing shall be conducted to determine the incinerator's mass emission rate and destruction efficiency for volatile organic compounds by means of the test method under OAC rule 3745-21-10(C) with concentration of VOC in the inlet and outlet gas streams determined by utilizing Method 25 or 25A of 40 CFR Part 60, Appendix A, and

c. The emissions testing shall be conducted to determine the VOC capture efficiency of the vapor collection system used to transport VOC emissions from the emissions unit's gashouse operations (propellant filling of aerosol cans and propellant line purging) to the thermal incinerator by means of test methods contained in Method 204 through 204E of 40CFR Part 51, Appendix M, or the alternative capture efficiency testing protocols specified in the USEPA, Office of Air Quality Planning and Standards document entitled "Guidelines for Determining Capture Efficiency," dated January 9, 1995.
.
d. The tests shall be conducted while the emissions unit's gashouse is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Office or local air agency.

V. Testing Requirements (continued)

e. The control efficiency of the thermal incinerator shall be the destruction efficiency times the capture efficiency divided by 100.

f. The mass emissions rate of the thermal incinerator, expressed in pounds VOC per 1000 aerosol cans produced, shall be the hourly mass emissions rate (lbs VOC/hour) divided by the hourly production rate (1000 cans/hour).

For the 9/24/02 compliance test of the thermal incinerator controlling the gashouse operations within emissions units P002, P003, P004, and P005, it was determined that the thermal incinerator emitted 0.16 pound VOC/1000 aerosol cans produced, demonstrated an overall control efficiency of 96.73% (destruction efficiency of 96.73% and capture efficiency of 100%), and showed a monitored combustion temperature average of 1,574 degrees F when operating at a combustion temperature set point of 1,510 degrees F for both the natural gas burner and the recovered propellant burner. The 9/24/02 compliance test comprised six 1-hour runs for emissions units P002, P003, P004, and P005 that operated at a combined production average of 19,932 cans/hour and a combined production range of 13,502 to 24,507 cans/hour.

4. For any emissions testing conducted under section A.V., the permittee shall meet the following requirements:

a. 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).

b. 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.

c. 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).

5. Safety Diversions for Gasser Operations Vented to a Thermal Incinerator.

a. A safety diversion is the venting of gasser operations directly to ambient air, instead of being vented to the thermal incinerator, in order to meet National Fire Protection Association (NFPA) 30B requirements. Under a safety diversion, the ventilation rate of the affected gashouse line is quickly increased, the gashouse line is vented immediately to ambient air (i.e., thermal incinerator is bypassed), and production activities usually continue unless there is a production shutdown due to an emergency event. Safety diversion events shall be included in the determination of compliance with the monthly VOC emission limitation of 0.75 lb VOC/1000 aerosol cans produced. The permittee shall maintain a list of criteria for safety diversions that are not emergency events and safety diversions that are emergency events.

b. The VOC emissions for a safety diversion event shall be calculated based on the average concentration of the LEL detectors associated with the gashouse line, the flow rate of the gashouse line (measured with a mass flow meter), the propellant being filled, and the length of the event (seconds).

c. The permittee shall calibrate the LEL detectors once per month following the manufacturer's protocol and shall check the flow meters once every six months for accuracy using a pitot tube.

d. For the next compliance testing of the thermal incinerator, the permittee shall conduct testing and evaluation of the accuracy of the mass flow meters. The permittee shall submit a report on such testing and evaluation at the time of the submittal of the thermal incinerator compliance test.

VI. Miscellaneous Requirements

1. Liquid Mixing Tanks: 29 Total Tanks

Mixing tanks primarily reside in Fill Room as listed. However, tanks of 350 Gal or less are portable and may be transported to other lines. Contents from any tank in a fill room may also be pumped through a hose to any other process fill line. No tank is specifically dedicated to any one process fill line.

Line 3 Fill Room:
1 Inerting Prototype / 350 Gal / Solvent/Other Material Blends
1 Tank / 1,400 Gal / Solvent/Other Material Blends
2 Tanks / @3,400 / Gal Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
3 Tanks / @350 Gal / Solvent/Other Material Blends
2 Fiberglass Tanks / @3,300 Gal / Solvent/Other Material Blends

Line 5 Fill Room:
2 Tanks / @350 Gal / Solvent/Other Material Blends
1 Tank / 250 Gal / Solvent/Other Material Blends

Line 6 & 7 Fill Room:
1 Tank / 1,400 Gal / Solvent/Other Material Blends
6 Tanks / @350 Gal / Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
2 Tanks / @1,300 Gal / Solvent/Other Material Blends
2 Tanks/ @3,300 Gal / Solvent/Other Material Blends
1 Water Heat Exch / 250 Gal / Water
1 Undercoat Tank / 150 Gal / Undercoat

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Line # 7 (P005)

Activity Description: Mixing, Filling, & Charging of Aerosol Containers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol filling line (liquid mixing, liquid filling of aerosol cans, propellant filling of aerosol cans by under-the-cup fill, propellant line purging, and manual cleaning of filled aerosol cans) with the gashouse operations (propellant filling and propellant line purging) controlled by thermal incinerator (See section A.VI.1. for listing of liquid mixing tanks.)	OAC rule 3745-31-05(A)(3) PTI 13-3186 (issued 02/26/97, and modified 04/30/97)	Volatile organic compound (VOC) emissions from liquid filling of aerosol cans shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07 and 3745-17-11.
	Findings and Orders entered into the Director's Journal on August 18, 1995 and approved by USEPA as a SIP revision for this facility (formerly Sprayon Products Incorporated) on April 25, 1996	See section A.I.2.a. below.
	OAC rule 3745-21-07(G)(2)	See section A.I.2.b. below.
	OAC rule 3745-17-11(B)(1)	During the loading of solid materials into a liquid mixing tank, particulate emissions shall not exceed 0.551 pound/hour (based on Table I).
	OAC rule 3745-17-07(A)	During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

2.a. For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced. (Note: This includes all VOC emissions from emissions units P002 through P006. Emissions unit P001 has been shut down.)

(This VOC emissions limitation is based on a pending resolution of the facility's appeal of the August 18, 1995 Findings and Orders and a pending resolution of the facility's appeal of USEPA's April 25, 1996 approval of the August 18, 1995 Findings and Orders as a SIP revision. A revised Findings and Orders that includes such pending resolution is to be issued by the Director with appropriate public notice and submitted to USEPA as a SIP revision.)

2.b. The requirements under this rule are not applicable due to the federally enforceable, site-specific requirements, based on reasonably available control technology (RACT), contained in the 8/18/95 Director's Findings and Orders. These RACT requirements are intended to be added to OAC rule 3745-21-09 pursuant to "Section VII.: Termination" of the 8/18/95 Findings and Orders. Also, as specified within OAC rule 3745-21-07(A)(2)(a), the requirements under OAC rule 3745-21-07 shall not apply to " . . . sources which are in compliance with or specifically exempted from the applicable requirements of rule 3745-21-09 of the Administrative Code."

II. Operational Restrictions

1. When the gashouse is in VOC operation, the emissions from the gashouse shall be vented to the thermal incinerator. The gashouse is in VOC operation when either the propellant being used to fill the aerosol cans contains VOC or the propellant being purged from the propellant line contains VOC.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit's gashouse is vented to the thermal incinerator, shall not be more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency and mass emission rate of the thermal incinerator were determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record for this emissions unit the following production information each day and maintain the information at the facility:

a. number of operating hours for the aerosol filling line, and

b. number of aerosol cans produced.

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

2. The permittee shall collect and record for this emissions unit the following production information each month and maintain the information at the facility:

a. number of operating hours for the aerosol filling line (sum of daily section A.III.1.a. data);

b. number of aerosol cans produced (sum of daily section A.III.1.b. data);

c. name and amount (pounds) of each VOC liquid charged to the mixing tanks and filled into aerosol cans;

d. number of aerosol cans filled with a VOC propellant by name of propellant, type of propellant filler (under-the-cup fill, needle fill, or Sepro fill), and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

e. number of VOC propellant line purges by name of propellant and type of emissions venting (vented to thermal incinerator or not vented to thermal incinerator);

f. name and amount (pounds) of each VOC liquid (solvent) used in the manual aerosol can cleaning operation (can brushing operation); and

g. number of safety diversion events and number of safety diversion events that are not emergency events (see safety diversions under section A.V.5.).

3. The permittee shall collect and record for this emissions unit the following chemical and physical properties for the VOC liquids and VOC propellants used in this emissions unit:

a. for any VOC liquid used in liquid mixing and liquid filling of aerosol cans, the liquid name, the liquid density (pounds/gallon), and the vapor pressure (mm Hg) at 70 degrees F and 80 degrees F;

b. for any VOC liquid used in manual aerosol can cleaning, the liquid name and the liquid density (lbs/gal); and

c. for any VOC propellant, the liquid density (lbs/gal) under usual propellant storage temperature and pressure, the vapor density (lbs/cc) at propellant filler temperature, and the fraction VOC by weight.

4. The permittee shall calculate and record for each month the following information for this emissions unit:

a. monthly amount of VOC emissions (pounds) from the liquid mixing operation, in accordance with section A.V.2.a.;

b. monthly amount of VOC emissions (pounds) from the liquid filling operation, in accordance with section A.V.2.b.;

c. monthly amount of VOC emissions (pounds) from the gashouse operations (propellant filling, propellant line purging, and safety diversions), in accordance with section A.V.2.c.;

d. monthly amount of VOC emissions (pounds) from the manual aerosol can cleaning operation (can brushing operation), in accordance with section A.V.2.d.;

e. monthly number of aerosol cans produced (sum of daily section A.III.1.b. data);

f. monthly amount of VOC emissions (pounds) from this emissions unit, which is the sum of data recorded under sections A.III.4.a., A.III.4.b., A.III.4.c., and A.III.4.d. for this emissions unit;

g. VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.i*.; and

h. average hourly amount of VOC emissions (pounds) for each day in the month from the combined liquid mixing and filling operations, in accordance with section A.V.1.b.ii*.

* Unless no longer required pursuant to section A.V.1.b.iv.

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

5. The permittee shall calculate and record for each month the following information for emissions units P002 through P006:

a. monthly amount of VOC emissions (pounds), which is a sum of the monthly VOC emissions recorded under section A.III.4.f. of the part III terms and conditions for emissions units P002 through P005 plus the monthly VOC emissions recorded under section A.III.2. of the part III terms and conditions for emissions unit P006;

b. monthly number of aerosol cans produced, which is a sum of the monthly aerosol can production recorded under section A.III.4.e. of the part III terms and conditions for emissions units P002 through P005;

c. monthly VOC emissions rate in pound/1000 cans, which is 1000 times the value from section A.III. 5.a. divided by the value from section A.III.5.b., and rounded to two decimal places;

d. amount of VOC emissions (pounds) during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.a. for this month and the previous 11 consecutive months;

e. number of aerosol can produced during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.b. for this month and the previous 11 consecutive months; and

f. VOC emissions rate during the rolling 12-month period in pound/1000 cans, which is 1000 times the value from section A.III. 5.d. divided by the value from section A.III.5.e., and rounded to two decimal places.

6. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit's gashouse is in VOC operation. Temperature shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day of gashouse operation:

a. a log of operating time for each of the following: gashouse ventilation to the thermal incinerator, gashouse ventilation directly to ambient air, thermal incinerator operation, temperature monitoring equipment operation, gashouse in VOC operation, and gashouse not in VOC operation;

b. a log of all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit's gashouse is in VOC operation, was more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emissions test during which the destruction efficiency of the thermal incinerator was determined as specified under section A.V.3., and the test results showed compliance with the VOC emissions limit for this emissions unit as specified under A.V.1.; and

c. a log of the dates and times of the bypass venting of gashouse emissions to ambient air (see safety diversions under section A.V.5.) and any downtime for the thermal incinerator and temperature monitoring equipment, when the emissions unit's gashouse is in VOC operation.

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

7. Visible Emissions from Mixing Tanks

a. The permittee shall perform weekly checks, when pigment is added to the mixing tanks of this emissions unit and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving the mixing tanks. 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:

i. the color of the emissions;

ii. whether the emissions are representative of normal operations;

iii. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

iv. the total duration of any visible emissions incident; and

v. any corrective actions taken to eliminate the visible emissions.

b. In the event of two consecutive quarters in which no visible emissions are observed under section A.III.7.a. for all mixing tanks of this emissions unit, the permittee can elect to perform checks for visible emissions on a monthly basis in the manner described under section A.III.7.a. If visible emissions are subsequently observed during any month, the permittee shall immediately go back to checks for visible emissions during each week as described under section A.III.7.a, and the permittee may again elect to use the provisions under this section.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the emission rate exceedances identified below.

a. Emissions rate recorded under section A.III.5.f. for a rolling 12-month period exceeds 0.75 lb VOC/1000 cans produced.

b. Emissions rate recorded under section A.III.4.h. exceeds 8 lbs VOC/hr.

c. Emissions rate recorded under section A.III.4.g. exceeds 40 lbs VOC/day.

These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the deviations recorded under sections A.III.6.b. and A.III.6.c. These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

3. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly summaries of the records specified under sections A.III.2., A.III.3., A.III.4., and A.III.5. These quarterly summaries shall be submitted by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

4. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly written reports of the records specified under section A.III.7. which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These quarterly reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I. of these terms and conditions shall be determined as follows:

V. Testing Requirements (continued)

1.a. Emission Limitation:
For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced.

Applicable Compliance Method:
Compliance shall be demonstrated by means of:

i. record keeping specified in sections A.III.2., A.III.3., A.III.4., and A.III.5. of the part III terms and conditions of emissions units P002 through P005;

ii. record keeping specified in sections A.III.1., A.III.2., and A.III.3. of the part III terms and conditions of emissions unit P006;

iii. calculating the VOC emissions rate for the mixing tanks (mixing operations), can liquid filling operations, gasser operations (gashouse operations), can brushing operations (manual can cleaning), and can piercing operations at this facility, as specified in section A.V.2. of the part III terms and conditions of emissions units P002 through P006;

iv. testing the thermal incinerator, as specified in A.V.3. of the part III terms and conditions of emissions units P002 through P005; and

v. operating and maintaining a continuous temperature monitor and recorder for the thermal incinerator and maintaining a log of gashouse operations, as specified in section A.III.6. of the part III terms and conditions of emissions units P002 through P005.

In the event additional emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

1.b. Emission Limitation:
Volatile organic compound (VOC) emissions from liquid mixing and liquid filling shall not exceed 8 lbs/hr, 40 lbs/day, and 7.3 tons/year.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and by calculating VOC emissions from can liquid filling as follows:

i. VOC emissions for each day in the month shall be calculated as (sum of monthly VOC emissions, in pounds, from section A.IV.4.b..) x (number of aerosol cans produced that day)/(total number of aerosol cans produced during the month).

ii. VOC emissions for each hour in the day shall be an hourly average VOC emission that is calculated as (daily VOC emissions from section A.V.1.b.i.)/(operating hours in that day).

iii. VOC emissions for the year are not needed to demonstrate compliance because the annual VOC emissions limit of 7.3 tons/year is not more stringent than the daily VOC limit multiplied by 365 days per year.

iv. In the event the permittee demonstrates to the satisfaction of the Director that the VOC emissions from can liquid filling cannot exceed 8 lbs/hr and 40 lbs/day on a worst case emissions basis for the various types of liquids being filled and the maximum liquid filling rate achievable by the fillers, the recordkeeping in sections A.III.1., A.III.3.a., A.III.4.b., A.III.4.g., and A.III.4.h. and the calculations in sections A.V.1.b.i. and A.V.1.b.ii. shall no longer be required for demonstrating compliance with these emissions limitations. The continued applicability of such worst case calculations shall be documented and submitted annually to the appropriate Ohio EPA District Office or local air agency

In the event emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

V. Testing Requirements (continued)

1.c. Emission Limitation:
Particulate emissions shall not exceed 0.551 pound/hour during the loading of solid materials into a liquid mixing tank.

Applicable Compliance Method:
The liquid mixing tanks for this emissions unit are similar to the mixing tanks at paint manufacturing facilities in which the particulate emissions are estimated to be 0.5 to 1.0 percent of the pigment handled, based on USEPA reference document AP-42: Compilation of Air Pollutant Emission Factors, Fifth Edition (Table 6.4-1 which has a "C" emission factor rating). This facility infrequently adds some pigment to the liquid mixing tanks, and such infrequent and low usage of pigment would not normally cause a particulate emissions to exceed this emissions limitation. Compliance with the visible particulate emissions limitation under section A.III.V.1.d. provides further assurance of compliance of this emissions limitation.

In the event testing is required to demonstrate compliance, the particulate emissions shall be determined by Method 5, 40 CFR 60, Appendix A.

1.d. Emission Limitation:
During the loading of solid materials into a liquid mixing tank, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping in section A.III.7. and the reporting in section A.IV.4.

In the event testing is required to demonstrate compliance, the visible emissions shall be determined by OAC rule 3745-17-03(B)(1).

2. The VOC emission calculations for this facility were taken in part from the permittee's Air Pollution Emission Model. The VOC emissions from this emissions unit shall be calculated as follows:

2.a. For liquid mixing operations, the monthly VOC emissions (pounds), E(mixing), shall be calculated as follows:

i. E(mixing) = Ei(loading) + Ei(venting)

where:

E(loading) = monthly VOC emissions from loading VOC liquids into mixing tanks

E(venting) = monthly VOC emissions from venting VOC liquids during mixing .

ii. For loading VOC liquid into a mixing tank, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(loading) = monthly sum of Ei(loading) for all VOC liquid "i" loaded into mixing tanks

Ei(loading) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(loading) = lbs of VOC emissions during the month from loading VOC liquid "i" into mixing tanks

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi = volume of VOC liquid "i" charged to mixing tanks during the month in cubic feet (equals monthly gallons of liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

V. Testing Requirements (continued)

iii. For venting of VOC liquids during mixing, the monthly VOC emissions shall be calculated, based on the Ideal Gas Law and venting of saturated vapors at 80 degrees F (27 degrees C), as follows:

E(venting) = monthly sum of Ei(venting) for all VOC liquid "i" loaded into mixing tanks

Ei(venting) = Pi * Xi * Vi,v * MWi / (R * T)

where:

Ei(venting) = lbs of VOC emissions during the month for venting a VOC liquid "i" during mixing

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

Vi,v = volume (cu ft) of saturated vapors removed by the ventilation system during mixing of VOC liquid "i" (equals monthly gallons of VOC liquid "i" times 5*30/350 based on 5% of the total ventilation flow rate or 5 cu ft/min, an average mixing time of 30 minutes per batch, and a typical batch size of 350 gallons)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

iv. (Alternative method to sections A.V.2.a.i through A.V.2.a.iii)

An alternative method for calculating the monthly emissions rate for liquid mixing operations shall be as follows

E(mixing) = EFM * V(mixing)

where:

EFM = emission factor of 0.00131 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for mixing operations during 1997 to 2000.)

V(mixing) = monthly throughput of VOC liquid employed for mixing, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in sections A.V.2.a.i through A.V.2.a.iii. shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.b. i. For the liquid filling of aerosol cans, the monthly VOC emissions (pounds) shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 70 degrees F (21 degrees C) as follows:

E(filling) = monthly sum of Ei(filling) for all VOC liquid "i" filling of aerosol cans

Ei(filling) = Pi * Xi * Vi * MWi / (R * T)

where:

Ei(filling) = lbs of VOC emissions during the month for VOC liquid "i" filling of aerosol cans

Pi = vapor pressure of VOC liquid "i" at 70 degrees F, in mmHg

Vi = volume of VOC liquid "i" filled into aerosol cans during the month in cubic feet (equals monthly gallons of VOC liquid "i" divided by 7.48 gal/cu ft)

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 21 degrees C)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

ii. (Alternative method to section A.V.2.b.i)

An alternative method for calculating the monthly emissions for liquid can filling operations shall be as follows:

E(filling) = EFF * V(filling)

where:

EFF = emission factor of 0.00026 lb VOC/lb VOC liquid throughput (This emission factor is based on the highest annual average emission factor for liquid can filling operations during 1997 to 2000.)

V(filling) = monthly throughput of VOC liquid employed for can filling, in pounds

If for any month in which the use of this alternative method shows non-compliance with the VOC emissions limit, the method described in section A.V.2.b.i shall be used to calculate monthly emissions. The compliance determination will then be based on the more detailed calculations.

V. Testing Requirements (continued)

2.c. For the gasser (gashouse) operations, the monthly VOC emissions (pounds), EG(total), shall be calculated as follows:

i. EG(total) = EG(filling) + EG(purging) + EG(safety diversions)

where:

EG(filling) = monthly VOC emissions from filling aerosol cans with VOC propellant

EP(purging) = monthly VOC emissions from purging of lines containing VOC propellant

EG(safety diversions) = monthly VOC emissions from safety diversions of VOC control equipment

ii. For the filling of aerosol cans with VOC propellant and the purging of lines containing VOC propellant, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG(filling) = monthly sum of (NCp,f,v) x (EFp,f) x (Kp) x (1 - CEp,v/100) x (VOCp)

EP(purging) = monthly sum of (NPp,v) x (Vp) x (LDp) x (1-Rp) x (1 - CEp,v/100) x (VOCp)

where:

CEp,v = control efficiency for propellant "p" VOC emissions and type of venting "v" for those emissions, based on venting of VOC propellant emissions to thermal incinerator or not and the VOC control efficiency of the thermal incinerator

CEp,v = 0% if propellant "p" VOC emissions are not vented to the thermal incinerator

CEp,v = 98% if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has not yet been compliance tested (98% is based on design efficiency from PTI application for emissions unit P003)

CEp,v = overall VOC control efficiency from most recent compliance test of the thermal incinerator, if propellant "p" VOC emissions are vented to the thermal incinerator and the thermal incinerator has been compliance tested (based on the 9/24/02 test, CEp,v = 96.73%)

EFp,f = emission factor for VOC propellant gas loss when filling cans with VOC propellant "p", based on propellant filler type "f" (under-the-cup fill, needle fill, or Sepro fill)

EFp,f = 0.2 cc/can for needle filling of VOC propellant "p"

EFp,f = 1.0 cc/can for Sepro filling of VOC propellant "p"

EFp,f = 1.75 cc/can for under-the-cup filling of VOC propellant "p"

Kp = conversion factor for gaseous VOC propellant "p" expressed in lbs/cc at standard conditions

LDp = liquid density of VOC propellant "p" at storage temperature and pressure, in pounds/gallon

NCp,f,v = number of cans produced with VOC propellant "p" and filling type "f" during the month by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

NPp,v = number of propellant line purges during the month for VOC propellant "p" by type of venting "v" (vented to thermal incinerator or not vented to thermal incinerator)

Rp = fraction by weight of purged VOC propellant "p" which is recovered and stored in a pressure tank

Vp = volume of propellant line purged for VOC propellant "p", in gallons

VOCp = fraction VOC by weight for VOC propellant "p" (usually 1 for a VOC containing propellant)

V. Testing Requirements (continued)

iii. (Alternative method to section A.V.2.c.ii)

For gasser operations equipped with a thermal incinerator in which the VOC emissions from the filling of aerosol cans with VOC propellant are vented to the thermal incinerator and the line purging of VOC propellant is recovered for use as a fuel in the thermal incinerator, the monthly VOC emissions for filling and line purging shall be calculated as follows:

EG (filling) + EG(purging) = EF * NC/1000

where:

EF = VOC emissions factor from most recent compliance test of the thermal incinerator, expressed in lbs VOC/1000 aerosol cans produced (based on the 9/24/02, EF = 0.16 lb VOC/1000 aerosol cans))

NC = number of aerosol cans produced with VOC propellant during the month

iv. EG(safety diversions) = the sum of the VOC emissions determined for each safety diversion event that is not an emergency event during the month (See section A.V.5. for information on safety diversions.)

2.d. For the manual aerosol can cleaning operation (can brushing operation), VOC emissions shall be equal to the mass of VOC solvent consumed in the operation. The monthly VOC emissions from can brushing shall be calculated as the sum of VOC emissions for all solvents consumed during that month. The VOC emissions from each VOC solvent consumed is calculated as the number of VOC solvent gallons consumed during the month times the VOC solvent density (pounds/gallon).

3. The permittee shall conduct, or have conducted, emissions testing for the thermal incinerator to demonstrate the thermal incinerator's mass emission rate and control efficiency for VOC emissions from this emissions unit's gashouse operations in accordance with the following requirements:

a. The emissions testing shall be conducted within 3 months after completed installation of the thermal incinerator, and subsequent emissions testing shall be conducted within 36 months after the previous emissions testing.

b. The emissions testing shall be conducted to determine the incinerator's mass emission rate and destruction efficiency for volatile organic compounds by means of the test method under OAC rule 3745-21-10(C) with concentration of VOC in the inlet and outlet gas streams determined by utilizing Method 25 or 25A of 40 CFR Part 60, Appendix A, and

c. The emissions testing shall be conducted to determine the VOC capture efficiency of the vapor collection system used to transport VOC emissions from the emissions unit's gashouse operations (propellant filling of aerosol cans and propellant line purging) to the thermal incinerator by means of test methods contained in Method 204 through 204E of 40CFR Part 51, Appendix M, or the alternative capture efficiency testing protocols specified in the USEPA, Office of Air Quality Planning and Standards document entitled "Guidelines for Determining Capture Efficiency," dated January 9, 1995.
.
d. The tests shall be conducted while the emissions unit's gashouse is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA Office or local air agency.

V. Testing Requirements (continued)

e. The control efficiency of the thermal incinerator shall be the destruction efficiency times the capture efficiency divided by 100.

f. The mass emissions rate of the thermal incinerator, expressed in pounds VOC per 1000 aerosol cans produced, shall be the hourly mass emissions rate (lbs VOC/hour) divided by the hourly production rate (1000 cans/hour).

For the 9/24/02 compliance test of the thermal incinerator controlling the gashouse operations within emissions units P002, P003, P004, and P005, it was determined that the thermal incinerator emitted 0.16 pound VOC/1000 aerosol cans produced, demonstrated an overall control efficiency of 96.73% (destruction efficiency of 96.73% and capture efficiency of 100%), and showed a monitored combustion temperature average of 1,574 degrees F when operating at a combustion temperature set point of 1,510 degrees F for both the natural gas burner and the recovered propellant burner. The 9/24/02 compliance test comprised six 1-hour runs for emissions units P002, P003, P004, and P005 that operated at a combined production average of 19,932 cans/hour and a combined production range of 13,502 to 24,507 cans/hour.

4. For any emissions testing conducted under section A.V., the permittee shall meet the following requirements:

a. 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).

b. 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.

c. 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).

5. Safety Diversions for Gasser Operations Vented to a Thermal Incinerator.

a. A safety diversion is the venting of gasser operations directly to ambient air, instead of being vented to the thermal incinerator, in order to meet National Fire Protection Association (NFPA) 30B requirements. Under a safety diversion, the ventilation rate of the affected gashouse line is quickly increased, the gashouse line is vented immediately to ambient air (i.e., thermal incinerator is bypassed), and production activities usually continue unless there is a production shutdown due to an emergency event. Safety diversion events shall be included in the determination of compliance with the monthly VOC emission limitation of 0.75 lb VOC/1000 aerosol cans produced. The permittee shall maintain a list of criteria for safety diversions that are not emergency events and safety diversions that are emergency events.

b. The VOC emissions for a safety diversion event shall be calculated based on the average concentration of the LEL detectors associated with the gashouse line, the flow rate of the gashouse line (measured with a mass flow meter), the propellant being filled, and the length of the event (seconds).

c. The permittee shall calibrate the LEL detectors once per month following the manufacturer's protocol and shall check the flow meters once every six months for accuracy using a pitot tube.

d. For the next compliance testing of the thermal incinerator, the permittee shall conduct testing and evaluation of the accuracy of the mass flow meters. The permittee shall submit a report on such testing and evaluation at the time of the submittal of the thermal incinerator compliance test.

VI. Miscellaneous Requirements

1. Liquid Mixing Tanks: 29 Total Tanks

Mixing tanks primarily reside in Fill Room as listed. However, tanks of 350 Gal or less are portable and may be transported to other lines. Contents from any tank in a fill room may also be pumped through a hose to any other process fill line. No tank is specifically dedicated to any one process fill line.

Line 3 Fill Room:
1 Inerting Prototype / 350 Gal / Solvent/Other Material Blends
1 Tank / 1,400 Gal / Solvent/Other Material Blends
2 Tanks / @3,400 / Gal Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
3 Tanks / @350 Gal / Solvent/Other Material Blends
2 Fiberglass Tanks / @3,300 Gal / Solvent/Other Material Blends

Line 5 Fill Room:
2 Tanks / @350 Gal / Solvent/Other Material Blends
1 Tank / 250 Gal / Solvent/Other Material Blends

Line 6 & 7 Fill Room:
1 Tank / 1,400 Gal / Solvent/Other Material Blends
6 Tanks / @350 Gal / Solvent/Other Material Blends
2 Tanks / @250 Gal / Solvent/Other Material Blends
2 Tanks / @1,300 Gal / Solvent/Other Material Blends
2 Tanks/ @3,300 Gal / Solvent/Other Material Blends
1 Water Heat Exch / 250 Gal / Water
1 Undercoat Tank / 150 Gal / Undercoat

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Can Piercing (P006)

Activity Description: Equipment Used to Pierce Aerosol Containers

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Aerosol can piercing operation	Findings and Orders entered into the Director's Journal on August 18, 1995 and approved by USEPA as a SIP revision for this facility (formerly Sprayon Products Incorporated) on April 25, 1996	See section A.I.2.a. below.
	OAC rule 3745-21-07(G)(2)	See section A.I.2.b. below.

2. Additional Terms and Conditions

2.a. For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced. (Note: This includes all VOC emissions from emissions units P002 through P006. Emissions unit P001 has been shut down.)

(This VOC emissions limitation is based on a pending resolution of the facility's appeal of the August 18, 1995 Findings and Orders and a pending resolution of the facility's appeal of USEPA's April 25, 1996 approval of the August 18, 1995 Findings and Orders as a SIP revision. A revised Findings and Orders that includes such pending resolution is to be issued by the Director with appropriate public notice and submitted to USEPA as a SIP revision.)

2.b. The requirements under this rule are not applicable due to the federally enforceable, site-specific requirements, based on reasonably available control technology (RACT), contained in the 8/18/95 Director's Findings and Orders. These RACT requirements are intended to be added to OAC rule 3745-21-09 pursuant to "Section VII.: Termination" of the 8/18/95 Findings and Orders. Also, as specified within OAC rule 3745-21-07(A)(2)(a), the requirements under OAC rule 3745-21-07 shall not apply to " . . . sources which are in compliance with or specifically exempted from the applicable requirements of rule 3745-21-09 of the Administrative Code."

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record for this emissions unit the following information each month and maintain the information at the facility:

a. number of aerosol cans pierced, categorized by type of product/propellant and size;

b. for each category of aerosol can identified under section A.III.1.a., the name and amount (lbs/can) of VOC liquid (solvent) and VOC propellant contained within the aerosol can;

c. for each VOC liquid, the vapor pressure (mm Hg) at 80 degrees F and the molecular weight (lbs/lb mole).

2. The permittee shall calculate and record for each month the monthly amount of VOC emissions (pounds) from this can piercing operation in accordance with section A.V.2.a.

3. The permittee shall calculate and record for each month the following information for emissions units P002 through P006:

a. monthly amount of VOC emissions (pounds), which is a sum of the monthly VOC emissions recorded under section A.III.4.f. of the part III terms and conditions for emissions units P002 through P005 plus the monthly VOC emissions recorded under section A.III.2. of the part III terms and conditions for emissions unit P006;

b. monthly number of aerosol cans produced, which is a sum of the monthly aerosol can production recorded under section A.III.4.e. of the part III terms and conditions for emissions units P002 through P005;

c. monthly VOC emissions rate in pound/1000 cans, which is 1000 times the value from section A.III. 5.a. divided by the value from section A.III.5.b., and rounded to two decimal places;

d. amount of VOC emissions (pounds) during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.a. for this month and the previous 11 consecutive months;

e. number of aerosol can produced during the rolling 12-month period, which is the sum of the values recorded under section A.III.5.b. for this month and the previous 11 consecutive months; and

f. VOC emissions rate during the rolling 12-month period in pound VOC/1000 cans, which is 1000 times the value from section A.III. 5.d. divided by the value from section A.III.5.e., and rounded to two decimal places.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify any emissions rate recorded under section A.III.3.f. for a rolling 12-month period which exceeds 0.75 lb VOC/1000 cans produced. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

2. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency quarterly summaries of the records specified under sections A.III.1. and A.III.2. These quarterly summaries shall be submitted by April 30, July 31, October 31, and January 31 and shall cover the records for the previous calendar quarters.

V. Testing Requirements

1. Compliance with the emissions limitations in section A.I. of these terms and conditions shall be determined as follows:

V. Testing Requirements (continued)

1.a. Emission Limitation:
For the liquid mixing tanks, can liquid filling operations, gasser operations, can brushing operations, and can piercing operations at this facility, the total VOC emissions in any rolling 12-month period shall not exceed 0.75 pound of VOC per 1000 aerosol cans produced.

Applicable Compliance Method:
Compliance shall be demonstrated by means of:

i. record keeping specified in sections A.III.2., A.III.3., A.III.4., and A.III.5. of the part III terms and conditions of emissions units P002 through P005;

ii. record keeping specified in sections A.III.1., A.III.2., and A.III.3. of the part III terms and conditions of emissions unit P006;

iii. calculating the VOC emissions rate for the mixing tanks (mixing operations), can liquid filling operations, gasser operations (gashouse operations), can brushing operations (manual can cleaning), and can piercing operations at this facility, as specified in section A.V.2. of the part III terms and conditions of emissions units P002 through P006;

iv. testing the thermal incinerator, as specified in A.V.3. of the part III terms and conditions of emissions units P002 through P005; and

v. operating and maintaining a continuous temperature monitor and recorder for the thermal incinerator and maintaining a log of gashouse operations, as specified in section A.III.6. of the part III terms and conditions of emissions units P002 through P005.

In the event additional emissions testing is required to demonstrate compliance, the VOC emissions shall be determined in accordance with OAC rule 3745-21-10(C).

2. The VOC emission calculations for this facility were taken in part from the permittee's Air Pollution Emission Model. For the can piecing operation, monthly VOC emissions shall be the total VOC emissions from propellants plus the total VOC emissions from liquid recovery.

a. The total VOC emissions (pounds) from propellants is the sum of the amount of VOC propellant within all cans pierced during that month. For a grouping of pierced cans by type and size, the monthly amount of VOC propellant is calculated as the amount of propellant VOC per can (lbs VOC /can), which is based on the type and size category, times the number of cans pierced during the month for that type and size category.

b. The total VOC emissions (pounds) from liquid recovery for all cans pierced during a month is the sum of VOC emissions from the liquids (solvents) within all cans pierced during that month. The VOC emissions from the liquids shall be calculated, based on the Ideal Gas Law and displacement of saturated vapors at 80 degrees F (27 degrees C) for liquid flowing into a recovery drum or vessel, using the following formulas:

E(piercing) = sum of Ei(piercing) for all VOC liquid "i" within the cans pierced in the month

Ei(piercing) = Pi * Xi * Vi * MWi / (R * T)

Vi = Wi * Nc / (7.48 * Di)

Wi = sum of (Wi,c * Nc) for VOC liquid "i" for all cans pierced (by can type and size category "c") during the month

where:

Di = density of VOC liquid "i", in lbs/gal

E(piercing) = total VOC emissions from liquid recovery for all cans pierced in the month, in pounds

Ei(piercing) = lbs of VOC emissions from VOC liquid "i" recovered from cans pierced in the month

V. Testing Requirements (continued)

MWi = molecular weight of VOC liquid "i", in lbs/lb mole

Nc = number of cans pierced during the month for can type and size category "c"

Pi = vapor pressure of VOC liquid "i" at 80 degrees F, in mmHg

R = 999 mmHg-cubic feet/lb mole-degrees K

T = temperature in degrees K (equals 273 plus 27 degrees C)

Vi = volume of VOC liquid "i" within the pierced cans for the month, in cubic feet

Wi = amount of VOC liquid "i" within the pierced cans for the month, in pounds

Wi,c = amount of VOC liquid "i" for can type and size category "c", in lbs/can

7.48 = conversion factor in gallons per cubic foot

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.

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

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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