OhioEPA

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

01/20/06

CERTIFIED MAIL

RE: Proposed Title V Minor Permit Modification Chapter 3745-77 permit

08-55-13-0356
DAP Inc.

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

Dear Ms. Damico:

The proposed issuance of the Title V permit for DAP Inc., has been created in Ohio EPA's State Air Resources System (STARS) on 01/20/06, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's electronic notification of this proposed action. Please contact me at (614) 644-3631 before the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Michael W. Ahern

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

cc: RAPCA
File, DAPC PMU

State of Ohio Environmental Protection Agency

PROPOSED TITLE V MINOR PERMIT MODIFICATION

Original Effective Date:	Expiration Date:	Modification Effective Date: ***To be enetered upon final issuance***

This document constitutes issuance of a Title V permit for Facility ID: 08-55-13-0356 to:
The duration of this permit will be five years.
DAP Inc.
875 North Third Street
Tipp City, OH 45371-3014

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

P005 (Let-down tanks numbered 220-231)
Paint mixing tanks

P012 (No. 1 and 2 Cowles Small Paint Mixers)
Paint mixing process

P014 (No. 4 Cowles 450 gal Paint Mixer)
Paint mixing process

P015 (No. 5 Cowles 450 gal Paint Mixer)
Paint mixing process

P016 (Mixer No.6)
Paint mixing process

P020 (MM1 Mastics Mixer No. 1
)
Mastics mixer

P021 (MM2 Mastics Mixer No. 2
)
Mastics mixer

P022 (CM1 Contact Cement Mixer No. 1

)
Contact cement mixer

P023 (CM2 Contact Cement Mixer No. 2
)
Contact cement mixer

P024 (TK A WIP Tank)
Temporary storage of work-in-progress contact cement. (Formerly Z001)

P025 (TK B WIP Tank)
Temporary storage of work-in-progress contact cement. (Formerly Z002)

P026 (TK C WIP Tank)
Temporary storage of rework. (Formerly Z003)

P027 (TK D WIP Tank)
Temporary storage of work-in-progress contact cement. (Formerly Z004)

P028 (TK E WIP Tank)
Temporary storage of work-in-progress non-flammable contact cement. (Formerly Z005)

P029 (TK F WIP Tank)
Temporary storage of work-in-progress 2056 contact cement. (Formerly Z006)

P030 (TK G WIP Tank)
Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z007)

P031 (TK H WIP Tank)
Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z008)

P032 (TK I WIP Tank)
Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z009)

P033 (TK J WIP Tank)
Temporary storage of work-in-progress Panel Weld. (Formerly Z010)

P034 (TK K WIP Tank)
Temporary storage of work-in-progress D-4000. (Formerly Z011)

P035 (TK L WIP Tank)
Temporary storage of work-in-progress mastics. (Formerly Z012)

P036 (TK M WIP Tank)
Temporary storage of work-in-progress D-9 mastic. (Formerly Z013)

P041 (Large Elgin Can Filler)
Formerly Gallon filling line (Formerly Z029)

P042 (Small Elgin Can Filler)
Mastics/contact cement can packaging line (Formerly Z030)

P043 (55-Gallon Drum Filler)
Adhesive Packaging Line (Formerly part of Z031)

P044 (5-Gallon Pail Filler)
Adhesive Packaging Line (Formerly part of Z031)

P045 (4-Stem Prosys Filler)
Formerly 10 Oz. Line (Formerly Z033)

P046 (3-Stem Prosys Filler)
Formerly 29 Oz. Line (Formerly Z034)

T031 (TK 6B - Methylene Chloride Storage Tank)
Storage of methylene chloride (Formerly emission unit Z019)

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

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

RAPCA
117 South Main Street
Dayton, OH 45422-1280
(937) 225-4435

OHIO ENVIRONMENTAL PROTECTION AGENCY

_____

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

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

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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

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

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

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

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

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

reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

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

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

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

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

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

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

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

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

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six

calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in Part II.A of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

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

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

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

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

2. Scheduled Maintenance

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

3. Risk Management Plans

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

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

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

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

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

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

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

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

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

f. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

   i. the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

   ii. the permittee no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

   iii. a combination of i. and ii. above.

   The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
   (Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(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 (i.e., postmarked) 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 emissions 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.
(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 or Emissions Levels

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

19. Permit to Install Requirement

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

20. Air Pollution Nuisance

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

21. Permanent Shutdown of an Emissions Unit

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

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

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

22. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

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

3. Inspections and Information Requests

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

4. Scheduled Maintenance/Malfunction Reporting

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

5. Permit Transfers

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

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations

occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing NESHAP, 40 CFR Part 63, Subpart HHHHH. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.

The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing NESHAP, 40 CFR Part 63, Subpart HHHHH. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.

2. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:

a. for a new affected source, the anticipated date of startup of operation;
b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
c. any existing federal, State, or local limitations or requirements applicable to the affected source;
d. for each affected emission point or group of affected emission points, an identification of control technology in place;
e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

The Part II application for a MACT determination may, but is not required to, contain the following information:

a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

A. State and Federally Enforceable Section (continued)

If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:

□a. □for a new affected source, the anticipated date of startup of operation;
□b. □the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
□c. □any existing federal, State, or local limitations or requirements applicable to the affected source;
□d. □for each affected emission point or group of affected emission points, an identification of control technology in place;
□e. □information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
□f. □any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

The Part II application for a MACT determination may, but is not required to, contain the following information:

□a. □recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
□b. □a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
□c. □relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

3. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:

□a.□Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):

□□i. □the name and mailing address of the permittee;

□□ii. □the physical location of the source if it is different from the mailing address;

□□iii. □identification of the relevant MACT standard and the source's compliance date;

□□iv.□a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and

□□v.□a statement confirming the facility is a major source for HAPs.

A. State and Federally Enforceable Section (continued)

b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:

□□i.□the methods used to determine compliance;

□□ii□the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;

□□iii.□the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;

□□iv.□the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;

□□v.□an analysis demonstrating whether the affected source is a major source or an area source;

□□vi.□a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

□□vii.□a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:

□a.□Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):

□□i. □the name and mailing address of the permittee;

□□ii. □the physical location of the source if it is different from the mailing address;

□□iii. □identification of the relevant MACT standard and the source's compliance date;

□□iv.□a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and

□□v.□a statement confirming the facility is a major source for HAPs.

A. State and Federally Enforceable Section (continued)

b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:

□□i.□the methods used to determine compliance;

□□ii□the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;

□□iii.□the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;

□□iv.□the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;

□□v.□an analysis demonstrating whether the affected source is a major source or an area source;

□□vi.□a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

□□vii.□a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

4. The emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility, shall not exceed 9.9 TPY for any individual HAP, as a rolling, 12-month summation, and 24.9 TPY for any combination of HAPs, as a rolling,12-month summation.

The emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility, shall not exceed 9.9 TPY for any individual HAP, as a rolling, 12-month summation, and 24.9 TPY for any combination of HAPs, as a rolling,12-month summation.

5. The permittee shall use the calculation methodologies found in the STAPPA/ALAPCO-EPA document, "Emission Inventory Improvement Program (EIIP), Volume II: Chapter 8, Preferred and Alternative Methods For Estimating Air Emissions From Paint and Ink Manufacturing Facilities," Updated March 2002, to estimate HAP emissions for this facility. The following calculations shall be performed for each batch of paint and adhesive that is processed at the facility:

a. The HAP emissions from material additions (displacement losses) to the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023) and from transfers to the let-down tanks (emissions unit P005), work-in-progress tanks (emissions units P024, P025, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, and P036), and packaging equipment (emissions units P041, P042, P043, P044, P045, and P046) shall be calculated in accordance with equation 8.4-1 of the above-referenced document.

b. The HAP emissions due to surface evaporation from the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023), let-down tanks (emissions unit P005), and work-in-progress tanks (emissions units P024, P025, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, and P036) shall be calculated in accordance with equation 8.4-18 of the above-referenced document.

c. The HAP emissions from heat-up caused by internal friction (no heat is applied and no exothermic reactions occur) during the mixing process in the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023) and let-down tanks (emissions unit P005), shall be calculated in accordance with equation 8.4-14 of the above-referenced document.

A. State and Federally Enforceable Section (continued)

d. For any emissions unit that has a condenser, the actual emission rate shall be determined by multiplying the uncontrolled emission rate by the control efficiency measured during the most recent stack test that showed the emissions unit in compliance with its allowable hourly emission rate.

e. The HAP emissions from bulk liquid storage of raw materials shall be calculated using the latest version of the U.S. EPA, TANKS program or equivalent calculations from U.S. EPA publication AP-42, Chapter 7 on a monthly basis.

The permittee shall use the calculation methodologies found in the STAPPA/ALAPCO-EPA document, "Emission Inventory Improvement Program (EIIP), Volume II: Chapter 8, Preferred and Alternative Methods For Estimating Air Emissions From Paint and Ink Manufacturing Facilities," Updated March 2002, to estimate HAP emissions for this facility. The following calculations shall be performed for each batch of paint and adhesive that is processed at the facility:

a. The HAP emissions from material additions (displacement losses) to the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023) and from transfers to the let-down tanks (emissions unit P005), work-in-progress tanks (emissions units P024, P025, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, and P036), and packaging equipment (emissions units P041, P042, P043, P044, P045, and P046) shall be calculated in accordance with equation 8.4-1 of the above-referenced document.

b. The HAP emissions due to surface evaporation from the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023), let-down tanks (emissions unit P005), and work-in-progress tanks (emissions units P024, P025, P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, and P036) shall be calculated in accordance with equation 8.4-18 of the above-referenced document.

c. The HAP emissions from heat-up caused by internal friction (no heat is applied and no exothermic reactions occur) during the mixing process in the paint and adhesive mixers (emissions units P012, P014, P015, P016, P020, P021, P022, and P023) and let-down tanks (emissions unit P005), shall be calculated in accordance with equation 8.4-14 of the above-referenced document.

d. For any emissions unit that has a condenser, the actual emission rate shall be determined by multiplying the uncontrolled emission rate by the control efficiency measured during the most recent stack test that showed the emissions unit in compliance with its allowable hourly emission rate.

e. The HAP emissions from bulk liquid storage of raw materials shall be calculated using the latest version of the U.S. EPA, TANKS program or equivalent calculations from U.S. EPA publication AP-42, Chapter 7 on a monthly basis.

6. The permittee shall keep records for the entire facility each month of the following information:

a. The name of each HAP received and processed.

b. The quantity, in pounds or tons, of each HAP received or processed.

c. The quantity, in pounds or tons, of all the HAPs received or processed.

d. The total facility-wide emissions (and associated calculations) for each individual HAP, in pounds or tons per year (calculated by summing the individual HAP emission rates from all the emissions units at the facility).

e. The total facility-wide emissions (and associated calculations) for all combined HAPs, in pounds or tons per year (calculated by summing all combined HAPs emission rates from all the emissions units at the facility).

f. The rolling 12-month summation of the total individual HAP emissions rates for each HAP from all the emissions units at the facility, in tons.

g. The rolling 12-month summation of the total combined HAP emissions rates from all the emissions units at the facility, in tons.

A. State and Federally Enforceable Section (continued)

The permittee shall keep records for the entire facility each month of the following information:

a. The name of each HAP received and processed.

b. The quantity, in pounds or tons, of each HAP received or processed.

c. The quantity, in pounds or tons, of all the HAPs received or processed.

d. The total facility-wide emissions (and associated calculations) for each individual HAP, in pounds or tons per year (calculated by summing the individual HAP emission rates from all the emissions units at the facility).

e. The total facility-wide emissions (and associated calculations) for all combined HAPs, in pounds or tons per year (calculated by summing all combined HAPs emission rates from all the emissions units at the facility).

f. The rolling 12-month summation of the total individual HAP emissions rates for each HAP from all the emissions units at the facility, in tons.

g. The rolling 12-month summation of the total combined HAP emissions rates from all the emissions units at the facility, in tons.

7. The permittee shall submit quarterly deviation (excursion) reports, in accordance with Part I of the GeneralTerms and Conditions, Section A.I.c. of this permit, of the following information:

a. An identification of each month during which the rolling, 12-month individual HAP emissions rate (from the facility) exceeded 9.9 tons, and the actual rolling, 12-month summation of each individual HAP emissions rate (from the facility) for each such month.

b. An identification of each month during which the rolling, 12-month combination of all HAP emissions rates (from the facility) exceeded 24.9 tons, and the actual rolling, 12-month summation of the combination of all HAP emissions rates (from the facility) for each such month.

The permittee shall submit quarterly deviation (excursion) reports, in accordance with Part I of the GeneralTerms and Conditions, Section A.I.c. of this permit, of the following information:

a. An identification of each month during which the rolling, 12-month individual HAP emissions rate (from the facility) exceeded 9.9 tons, and the actual rolling, 12-month summation of each individual HAP emissions rate (from the facility) for each such month.

b. An identification of each month during which the rolling, 12-month combination of all HAP emissions rates (from the facility) exceeded 24.9 tons, and the actual rolling, 12-month summation of the combination of all HAP emissions rates (from the facility) for each such month.

8. The permittee shall submit annual reports that summarize the annual emmissions of each individual HAP and the combined emissions of all the HAPs for the facility. These reports shall cover the previous calendar year and shall be submitted by January 31 of each year.

The permittee shall submit annual reports that summarize the annual emmissions of each individual HAP and the combined emissions of all the HAPs for the facility. These reports shall cover the previous calendar year and shall be submitted by January 31 of each year.

B. State Only Enforceable Section

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

B003 Boiler # 2
B004 Boiler # 1
P002 Ball Mill # 2
P007 Half Pint Filling- Paint Filling Line
P009 Gallon Paint Fill Line
P011 Aerosol Line
P017 Mixer 215
P018 Mixer 216
P039 Powdered Mineral Silo, controlled by fabric filters identified as Z040A and Z040B
P040 Daptex Charger for the Charging of Aerosol Cans with Propellant
P047 CC1 Mixer Powdered Mineral Bag Dump Station
P048 Mastic Mixer Powdered Mineral Bag Dump Station
P049 CC2 Mixer Powdered Mineral Bag Dump Station
P050 Aerosol Charger for the Charging of Aerosol Cans with Propellant
R001 QC Spray Booths
T027 TK2 12,000-gallon Toluene Aboveground Storage Tank
T028 TK-03 12,000-gallon Vertical Fixed Roof Textile Spirits Storage Tank
T029 TK-04 12,000-gallon Vertical Fixed Roof Textile Spirits Storage Tank
T030 TK-01 12,000-gallon Vertical Fixed Roof Acetone Storage Tank
Z014 Tank Cleaning Station
Z016 Tank 5A Med. Oil Alkyd Storage Tank
Z017 TK5B Vinyl Toluene Alkyd Storage Tank
Z018 TK6A Lactol Spirits Storage Tank
Z020 TK7A Mineral Spirits Storage Tanks
Z021 TK7B V,M,&P Naptha Storage Tank
Z022 TK8A Aromatic Hydrocarbon Storage Tank
Z023 TK8B MEK Storage Tank
Z024 White Glue Storage Tank

B. State Only Enforceable Section (continued)

Z025 Yellow Glue Storage Tank
Z026 DAPTEX Storage Tanks
Z027 Piping Components
Z028 Emergency Generator 285HP
Z032 Packaging Line 1 and 3 oz CC
Z035 Hand Filling of 5 gallon Pails
Z041 Simplex 1
Z043 Glue Handfill Line
Z044 Sand Mill 1
Z045 Sand Mill 2
Z046 Sand Mill 3
Z047 Sand Mill 4
Z048 Sand Mill 5
Z049 Daptex Pre-Stage Mixer
Z051 Daptex Aerosol Filling Line
Z052 Hand Fill of 55-gallon Drum
Z054 Flecto Gallon Line
Z055 Flecto Quart Line
Z056 Daptex Latex - 4 Tank
Z057 Paint Mixer 7
Z058 Paint Mixer 8
Z059 Diesel Fire Pump
Z060 D-15 totes
Z061 latex tank
Z062 clay slurry tank
Z063 Spensol tank
Z064 Rhoplex tank
Z065 Tufflo oil tank
Z066 Resin tank
Z067 4000 low-VOC tank
Z068 Myers mixer

Each insignifiicant 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.

B. State Only Enforceable Section (continued)

The following insignificant emissions units are located at this facility:

B003 Boiler # 2
B004 Boiler # 1
P002 Ball Mill # 2
P007 Half Pint Filling- Paint Filling Line
P009 Gallon Paint Fill Line
P011 Aerosol Line
P017 Mixer 215
P018 Mixer 216
P039 Powdered Mineral Silo, controlled by fabric filters identified as Z040A and Z040B
P040 Daptex Charger for the Charging of Aerosol Cans with Propellant
P047 CC1 Mixer Powdered Mineral Bag Dump Station
P048 Mastic Mixer Powdered Mineral Bag Dump Station
P049 CC2 Mixer Powdered Mineral Bag Dump Station
P050 Aerosol Charger for the Charging of Aerosol Cans with Propellant
R001 QC Spray Booths
T027 TK2 12,000-gallon Toluene Aboveground Storage Tank
T028 TK-03 12,000-gallon Vertical Fixed Roof Textile Spirits Storage Tank
T029 TK-04 12,000-gallon Vertical Fixed Roof Textile Spirits Storage Tank
T030 TK-01 12,000-gallon Vertical Fixed Roof Acetone Storage Tank
Z014 Tank Cleaning Station
Z016 Tank 5A Med. Oil Alkyd Storage Tank
Z017 TK5B Vinyl Toluene Alkyd Storage Tank
Z018 TK6A Lactol Spirits Storage Tank
Z020 TK7A Mineral Spirits Storage Tanks
Z021 TK7B V,M,&P Naptha Storage Tank
Z022 TK8A Aromatic Hydrocarbon Storage Tank
Z023 TK8B MEK Storage Tank
Z024 White Glue Storage Tank

B. State Only Enforceable Section (continued)

Z025 Yellow Glue Storage Tank
Z026 DAPTEX Storage Tanks
Z027 Piping Components
Z028 Emergency Generator 285HP
Z032 Packaging Line 1 and 3 oz CC
Z035 Hand Filling of 5 gallon Pails
Z041 Simplex 1
Z043 Glue Handfill Line
Z044 Sand Mill 1
Z045 Sand Mill 2
Z046 Sand Mill 3
Z047 Sand Mill 4
Z048 Sand Mill 5
Z049 Daptex Pre-Stage Mixer
Z051 Daptex Aerosol Filling Line
Z052 Hand Fill of 55-gallon Drum
Z054 Flecto Gallon Line
Z055 Flecto Quart Line
Z056 Daptex Latex - 4 Tank
Z057 Paint Mixer 7
Z058 Paint Mixer 8
Z059 Diesel Fire Pump
Z060 D-15 totes
Z061 latex tank
Z062 clay slurry tank
Z063 Spensol tank
Z064 Rhoplex tank
Z065 Tufflo oil tank
Z066 Resin tank
Z067 4000 low-VOC tank
Z068 Myers mixer

Each insignifiicant 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: Let-down tanks numbered 220-231 (P005)

Activity Description: Paint mixing tanks

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
P005 - Let-down Paint Tanks 220, 221, 222, 227 and 229	OAC rule 3745-31-05(A)(3) PTI 08-04233	2.31 lbs organic compounds (OC)/hr, 17.28 lbs OC/day, and 3.20 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for each let-down paint tank (Tank 220, Tank 221, Tank 222, Tank 227 and Tank 229) associated with this emissions unit:

a. the company identification for each batch of product mixed/stored;

b. the number of hours of operation;

c. the number of gallons mixed/stored of each product;

d. the number of batches of each product mixed/stored;

e. the calculated vapor pressure (psia) of the product;

f. the calculated vapor molecular weight (lb/lb-mole) of each product;

g. the average temperature of each let-down tank when in operation (degrees R);

h. the open area of each tank (square feet);

i. the partial pressure of each VOC in each vessel head space (psia);

j. the calculated gas vapor pressure in each vessel (psia);

k. the average initial gas temperature (degrees R) and final gas temperature (degrees R);

l. the determination of the displacement, evaporation, point source, and heat up OC losses for each product mixed/stored in each let-down tank (in pounds) [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002].

m. the total calculated OC emission rate for this emissions unit [the summation of OCs for all the let down tanks, 220, 221, 222, 227, and 229, combined, for all the products], in pounds; and

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

n. the average hourly OC emission rate (m/b), in pounds.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)**

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

point source loss (lbs/day) = (Ed)x(Qex)x(Tex)/(Batch volume)

where:

Qex = volumetric exhaust rate (24.23 gallons/minute)
Tex = the length of time the exhaust fan is running during dry material addition (assume 5 min per batch)

heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)*
T2 = final gas temperature (degrees R)*

*The mixing processes occur at ambient temperature. No heat is applied, no exothermic reactions occur and no appreciable amount of internal friction is generated.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the average hourly organic compound emissions from the mixing and/or storing of materials exceeded 2.31 pounds per hour, and the actual average hourly organic compound emissions for each such day.

b. An identification of each day during which the organic compound emissions from the mixing and/or storing of materials exceeded 17.28 pounds per day, and the actual organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
2.31 lbs OC/hr

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
17.28 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
3.20 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be determined based upon the record keeping requirements in Section A.III.1. and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000.

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
P005 - Let-down Paint Tanks 220, 221, 222, 227, and 229	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit (P005) was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: Methanol

TLV (ug/m3): 262,090

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 46.13

MAGLC (ug/m3): 6240

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: No. 1 and 2 Cowles Small Paint Mixers (P012)

Activity Description: Paint mixing process

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
P012 - No. 1 and No. 2 Cowles Small Paint Mixers	OAC rule 3745-31-05(A)(3) PTI 08-04233	1.28 lbs organic compounds (OC)/hr, 30.72 lbs/day and 5.60 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for each paint mixer (Mixer 1 and Mixer 2) associated with this emissions unit:

a. the company identification for each batch of product mixed/stored;

b. the number of hours of operation;

c. the number of gallons mixed/stored of each product;

d. the number of batches of each product mixed/stored;

e. the calculated vapor pressure (psia) of the product;

f. the calculated vapor molecular weight (lb/lb-mole) of each product;

g. the average temperature of each mixer when in operation (degrees R);

h. the open area of each mixer (square feet);

i. the partial pressure of each VOC in each vessel head space (psia);

j. the calculated gas vapor pressure in each vessel (psia);

k. the average initial gas temperature (degrees R) and final gas temperature (degrees R);

l. the determination of the displacement, evaporation, point source, and heat up OC losses for each product mixed/stored in each mixer (in pounds) [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", March 2002]

m. the total calculated OC emission rate for this emissions unit [the summation of OCs for all the mixers, mixers 1 and 2, combined, for all the products], in pounds; and

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

n. the average hourly OC emission rate (m/b), in pounds.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)H/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

point source loss (lbs/batch) = (Ed)x(Qex)x(Tex)/(Batch volume)

where:

Qex = volumetric exhaust rate (24.23 gallons/minute)
Tex = the length of time the exhaust fan is running during dry material addition (assume 5 min per batch)

heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)*
T2 = final gas temperature (degrees R)*

*The mixing processes occur at ambient temperature. No heat is applied, no exothermic reactions occur and no appreciable amount of internal friction is generated.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the average hourly organic compound emissions from the mixing of materials exceeded 1.28 pounds per hour, and the actual average hourly organic compound emissions for each such day.

b. An identification of each day during which the organic compound emissions from the mixing of materials exceeded 30.72 pounds per day, and the actual organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
1.28 lbs OC/hr

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
30.72 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
5.6 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000.

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
P012 - No. 1 and No. 2 Cowles Small Paint Mixers	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit (P012) was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: No. 4 Cowles 450 gal Paint Mixer (P014)

Activity Description: Paint mixing process

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
P014 - Cowles 450-gallon paint mixer No. 4, with fabric filter	OAC rule 3745-31-05(A)(3) PTI 08-04307	0.53 lb organic compounds (OC)/hr, 6.37 lbs OC/day, and 1.16 tons/yr O(0.069 lb/hr particulate emissions (PE) Visible PE shall not exceed 5% opacity, as a six-minute average.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained at not less than 0.5 inch of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. the company identification for each batch of product mixed/stored;

b. the number of hours of operation;

c. the number of gallons mixed/stored of each product;

d. the number of batches of each product mixed/stored;

e. the calculated vapor pressure (psia) of the product;

f. the calculated vapor molecular weight (lb/lb-mole) of each product;

g. the average temperature of the mixer when in operation (degrees R);

h. the open area of the mixer (square feet);

i. the partial pressure of each VOC in each vessel head space (psia);

j. the calculated gas vapor pressure in each vessel (psia);

k. the average initial gas temperature (degrees R) and final gas temperature (degrees R);

l. the determination of the displacement, evaporation, point source, and heat up OC losses for each product mixed/stored in the mixer (in pounds) [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002]

m. the total calculated OC emission rate for this emissions unit [the summation of OCs (from section 1.l) for all the products], in pounds; and

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

n. the average hourly OC emission rate (m/b), in pounds.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipoment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

point source loss (lbs/batch) = (Ed)x(Qex)x(Tex)/(Batch volume)

where:

Qex = volumetric exhaust rate (24.23 gallons/minute)
Tex = the length of time the exhaust fan is running during dry material addition (assume 5 min per batch)

heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)*
T2 = final gas temperature (degrees R)*

*The mixing processes occur at ambient temperature. No heat is applied, no exothermic reactions occur and no appreciable amount of internal friction is generated.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on a daily basis.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the average hourly organic compound emissions from the mixing of materials exceeded 0.53 pound per hour, and the actual average hourly organic compound emissions for each such day.

b. An identification of each day during which the organic compound emissions from the mixing of materials exceeded 6.37 pounds per day, and the actual organic compound emissions for each such day.

c. An identification of all periods of time during which the pressure drop across the fabric filter was not maintained at the required level specified in section A.II.1 of this permit.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
0.53 lb OC/hr

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.37 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
1.16 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000.

1.d Emission Limitation-
0.069 lb/hr PE

Applicable Compliance Method-
Compliance with the hourly allowable PE limitation may be determined by multiplying the maximum hourly pigment usage (0.34 ton/hr) by the AP-42, Section 6.4, Table 6.4-1 (revised 1/95) emission factor of 20 lbs PE/ton of pigment used, and then by the fabric filter control factor of (1-0.99).*

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

*The fabric filter efficiency is assumed to be 99%.

V. Testing Requirements (continued)

1.e Emission Limitation-
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method-
If required, compliance shall be determined by visible emissions evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
P014 - Cowles 450-gallon paint mixer No. 4, with fabric (particulate) filter	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit 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 (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 490

MAGLC (ug/m3): 4,486

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

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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: No. 5 Cowles 450 gal Paint Mixer (P015)

Activity Description: Paint mixing process

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
P015 - Cowles 450-gallon paint mixer No. 5, with fabric filter	OAC rule 3745-31-05(A)(3) PTI 08-04307	0.53 lb organic compounds (OC)/hr, 6.37 lbs OC/day, and 1.16 tons/yr O(0.069 lb/hr particulate emissions (PE) Visible PE shall not exceed 5% opacity, as a six-minute average.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained at not less than 0.5 inch of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. the company identification for each batch of product mixed/stored;

b. the number of hours of operation;

c. the number of gallons mixed/stored of each product;

d. the number of batches of each product mixed/stored;

e. the calculated vapor pressure (psia) of the product;

f. the calculated vapor molecular weight (lb/lb-mole) of each product;

g. the average temperature of the mixer when in operation (degrees R);

h. the open area of the mixer (square feet);

i. the partial pressure of each VOC in each vessel head space (psia);

j. the calculated gas vapor pressure in each vessel (psia);

k. the average initial gas temperature (degrees R) and final gas temperature (degrees R);

l. the determination of the displacement, evaporation, point source, and heat up OC losses for each product mixed/stored in the mixer (in pounds) [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", March 2002]

m. the total calculated OC emission rate for this emissions unit [the summation of OCs (from section 1.l) for all the products], in pounds; and

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

n. the average hourly OC emission rate (m/b), in pounds.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipoment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

point source loss (lbs/batch) = (Ed)x(Qex)x(Tex)/(Batch volume)

where:

Qex = volumetric exhaust rate (24.23 gallons/minute)
Tex = the length of time the exhaust fan is running during dry material addition (assume 5 min per batch)

heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)*
T2 = final gas temperature (degrees R)*

*The mixing processes occur at ambient temperature. No heat is applied, no exothermic reactions occur and no appreciable amount of internal friction is generated.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on a daily basis.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the average hourly organic compound emissions from the mixing of materials exceeded 0.53 pound per hour, and the actual average hourly organic compound emissions for each such day.

b. An identification of each day during which the organic compound emissions from the mixing of materials exceeded 6.37 pounds per day, and the actual organic compound emissions for each such day.

c. An identification of all periods of time during which the pressure drop across the fabric filter was not maintained at the required level specified in section A.II.1 of this permit.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
0.53 lb OC/hr

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.37 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
1.16 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000.

1.d Emission Limitation-
0.069 lb/hr PE

Applicable Compliance Method-
Compliance with the hourly allowable PE limitation may be determined by multiplying the maximum hourly pigment usage (0.34 ton/hr) by the AP-42, Section 6.4, Table 6.4-1 (revised 1/95) emission factor of 20 lbs PE/ton of pigment used, and then by the fabric filter control factor of (1-0.99).*

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

*The fabric filter efficiency is assumed to be 99%.

V. Testing Requirements (continued)

1.e Emission Limitation-
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method-
If required, compliance shall be determined by visible emissions evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
P015 - Cowles 450-gallon paint mixer No. 5, with fabric filter	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit 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 (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 490

MAGLC (ug/m3): 4,486

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

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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mixer No.6 (P016)

Activity Description: Paint mixing process

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
P016 - Cowles 450-gallon paint mixer No. 6, with fabric filter	OAC rule 3745-31-05(A)(3) PTI 08-04307	0.53 lb organic compounds (OC)/hr, 6.37 lbs OC/day, and 1.16 tons/yr O(0.069 lb/hr particulate emissions (PE) Visible PE shall not exceed 5% opacity, as a six-minute average.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained at not less than 0.5 inch of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. the company identification for each batch of product mixed/stored;

b. the number of hours of operation;

c. the number of gallons mixed/stored of each product;

d. the number of batches of each product mixed/stored;

e. the calculated vapor pressure (psia) of the product;

f. the calculated vapor molecular weight (lb/lb-mole) of each product;

g. the average temperature of the mixer when in operation (degrees R);

h. the open area of the mixer (square feet);

i. the partial pressure of each VOC in each vessel head space (psia);

j. the calculated gas vapor pressure in each vessel (psia);

k. the average initial gas temperature (degrees R) and final gas temperature (degrees R);

l. the determination of the displacement, evaporation, point source, and heat up OC losses for each product mixed/stored in the mixer (in pounds) [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002];

m. the total calculated OC emission rate for this emissions unit [the summation of OCs (from section 1.l) for all the products], in pounds; and

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

n. the average hourly OC emission rate (m/b), in pounds.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipoment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

point source loss (lbs/batch) = (Ed)x(Qex)x(Tex)/(Batch volume)

where:

Qex = volumetric exhaust rate (24.23 gallons/minute)
Tex = the length of time the exhaust fan is running during dry material addition (assume 5 min per batch)

heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)*
T2 = final gas temperature (degrees R)*

*The mixing processes occur at ambient temperature. No heat is applied, no exothermic reactions occur and no appreciable amount of internal friction is generated.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on a daily basis.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the average hourly organic compound emissions from the mixing of materials exceeded 0.53 pound per hour, and the actual average hourly organic compound emissions for each such day.

b. An identification of each day during which the organic compound emissions from the mixing of materials exceeded 6.37 pounds per day, and the actual organic compound emissions for each such day.

c. An identification of all periods of time during which the pressure drop across the fabric filter was not maintained at the required level specified in section A.II.1 of this permit.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitation-
0.53 lb OC/hr

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.37 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
1.16 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000.

1.d Emission Limitation-
0.069 lb/hr PE

Applicable Compliance Method-
Compliance with the hourly allowable PE limitation may be determined by multiplying the maximum hourly pigment usage (0.34 ton/hr) by the AP-42, Section 6.4, Table 6.4-1 (revised 1/95) emission factor of 20 lbs PE/ton of pigment used, and then by the fabric filter control factor of (1-0.99).*

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

*The fabric filter efficiency is assumed to be 99%.

V. Testing Requirements (continued)

1.e Emission Limitation-
Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method-
If required, compliance shall be determined by visible emissions evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
P016 - Cowles 450-gallon paint mixer No. 6, with fabric filter	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit 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 (mg/m3): 188

Maximum Hourly Emission Rate (lbs/hr): 1.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 490

MAGLC (ug/m3): 4,486

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

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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: MM1 Mastics Mixer No. 1□□ (P020)

Activity Description: Mastics mixer

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
P020 - MM1 Mastics Mixer No. 1, equipped with a condenser	OAC rule 3745-31-05(A)(3) PTI 08-3642	38.09 lbs organic compounds (OC)/day, and 2.87 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not exceed 62 degrees Fahrenheit.

2. The permittee shall not process methylene chloride formulations in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. The company identification for each batch of product mixed.

b. The volume, in gallons, of each batch mixed.

c. The calculated vapor pressure of the material produced in each batch (psia).

d. The calculated vapor molecular weight of the material produced in each batch (lb/lb-mole).

e. The average temperature of the mixer when in operation (degrees R).

f. The batch time (hours/batch).

g. The open area of the mixer (square feet).

h. The partial pressure of each VOC in each mixer head space (psia).

i. The calculated gas vapor pressure in each mixer (psia).

j. The average initial and final gas temperatures (degrees R).

k. The determination of the displacement, evaporation, and heat up OC losses mixed/stored in the mixer for each batch, in pounds, [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002].

l. The total calculated before-control OC emission rate for this emissions unit [the summation of the displacement, evaporation, and heat up OC losses for all batches], in pounds.

m. The total calculated controlled OC emission rate for this emissions unit, in pounds per day [the value calcualted in (l) multplied by a control efficiency of 82% (l x (1-0.82)) per the condenser design evaluation conducted according to equations in 40 CFR 63.1257(d)].

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

n. Documentation of whether or not the products mixed in this emissions unit contain methylene chloride.

* Displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

Heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
V = vessel head space (ft^3)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)
T2 = final gas temperature (degrees R)

2. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be gauranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/-5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for the condenser:

a. The average temperature of the exhaust gases from the condenser during each of the eight 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the organic compound emission rate from the production of mastic materials exceeded 38.09 pounds per day, and the actual organic compound emissions for each such day.

b. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified above.

c. An dentification of each day during which methylene chloride formulations were processed.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation-
38.09 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
2.87 tons/yr OC

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000 pounds/ton.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: MM2 Mastics Mixer No. 2□□ (P021)

Activity Description: Mastics mixer

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
P021 - MM1 Mastics Mixer No. 2, equipped with a condenser	OAC rule 3745-31-05(A)(3) PTI 08-3642	38.09 lbs organic compounds (OC)/day, and 2.87 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not exceed 62 degrees Fahrenheit.

2. The permittee shall not process methylene chloride formulations in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. The company identification for each batch of product mixed.

b. The volume, in gallons, of each batch mixed.

c. The calculated vapor pressure of the material produced in each batch (psia).

d. The calculated vapor molecular weight of the material produced in each batch (lb/lb-mole).

e. The average temperature of the mixer when in operation (degrees R).

f. The batch time (hours/batch).

g. The open area of the mixer (square feet).

h. The partial pressure of each VOC in each mixer head space (psia).

i. The calculated gas vapor pressure in each mixer (psia).

j. The average initial and final gas temperatures (degrees R).

k. The determination of the displacement, evaporation, and heat up OC losses mixed/stored in the mixer for each batch, in pounds, [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002].

l. The total calculated before-control OC emission rate for this emissions unit [the summation of the displacement, evaporation, and heat up OC losses for all batches], in pounds.

m. The total calculated controlled OC emission rate for this emissions unit, in pounds per day [the value calcualted in (l) multplied by a control efficiency of 82% (l x (1-0.82)) per the condenser design evaluation conducted according to equations in 40 CFR 63.1257(d)].

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

n. Documentation of whether or not the products mixed in this emissions unit contain methylene chloride.

* Displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

Heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
V = vessel head space (ft^3)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)
T2 = final gas temperature (degrees R)

2. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be gauranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/-5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for the condenser:

a. The average temperature of the exhaust gases from the condenser during each of the eight 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the organic compound emission rate from the production of mastic materials exceeded 38.09 pounds per day, and the actual organic compound emissions for each such day.

b. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified above.

c. An dentification of each day during which methylene chloride formulations were processed.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation-
38.09 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
2.87 tons/yr OC

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000 pounds/ton.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: CM1 Contact Cement Mixer No. 1□□□□ (P022)

Activity Description: Contact cement mixer

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
P022 - CM1 Contact Cement Mixer No. 1, with condenser	OAC rule 3745-31-05(A)(3) PTI 08-3642	30.4 lbs organic compounds (OC)/day, and 1.69 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not exceed 57 degrees Fahrenheit.

2. The permittee shall not process methylene chloride formulations in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. The company identification for each batch of product mixed.

b. The volume, in gallons, of each batch mixed.

c. The calculated vapor pressure of the material produced in each batch (psia).

d. The calculated vapor molecular weight of the material produced in each batch (lb/lb-mole).

e. The average temperature of the mixer when in operation (degrees R).

f. The batch time (hours/batch).

g. The open area of the mixer (square feet).

h. The partial pressure of each VOC in each mixer head space (psia).

i. The calculated gas vapor pressure in each mixer (psia).

j. The average initial and final gas temperatures (degrees R).

k. The determination of the displacement, evaporation, and heat up OC losses mixed/stored in the mixer for each batch, in pounds, [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002].

l. The total calculated before-control OC emission rate for this emissions unit [the summation of the displacement, evaporation, and heat up OC losses for all batches], in pounds.

m. The total calculated controlled OC emission rate for this emissions unit, in pounds per day, [the value calcualted in (l) multplied by a control efficiency of 76% (l x(1-0.76)) per the condenser design evaluation conducted according to equations in 40 CFR 63.1257(d)].

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

n. Documentation on whether or not the products mixed in this emissions unit contain methylene chloride.

* Displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/day) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

Heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
V = vessel head space (ft^3)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)
T2 = final gas temperature (degrees R)

2. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be gauranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/-5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for the condenser:

a. The average temperature of the exhaust gases from the condenser during each of the eight 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the organic compound emission rate from the production of mastic materials exceeded 30.4 pounds per day, and the actual organic compound emissions for each such day.

b. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified above.

c. An dentification of each day during which methylene chloride formulations were processed.

2. The permittee shall submit annual reports to the Director (RAPCA) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation-
30.4 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
1.69 tons/yr OC

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000 pounds/ton.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: CM2 Contact Cement Mixer No. 2□□ (P023)

Activity Description: Contact cement mixer

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
P023 - CM2 Contact Cement Mixer No. 2, with primary and secondary condensers and carbon adsorption canisters	OAC rule 3745-31-05(A)(3) PTI 08-3642	30.4 lbs organic compounds (OC)/day, and 1.69 tons/yr OC

2. Additional Terms and Conditions

None

II. Operational Restrictions

1. The average temperature of the exhaust gases from the primary condenser, for any 3-hour block of time, shall not exceed 57 degrees Fahrenheit.

2. When processing methylene chloride formulations in this emissions unit the permittee shall employ a secondary condenser and activated carbon canister for teriary emissions control.

3. When processing methylene chloride fromulations, the average temperature of the exhaust gases from the secondary condenser, for any 3-hour block of time, shall not exceed 23 degrees Fahrenheit.

4. When processing methylene chloride fromulations, The permittee shall install and operate a new 180 lb activiated carbon canister capable of removing 18 lbs of methylene chloride emissions from the mixer exhaust stream for tertiary air emissions control prior to processing each batch of methylene chloride formualtions in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for this emissions unit:

a. The company identification for each batch of product mixed.

b. The volume, in gallons, of each batch mixed.

c. The calculated vapor pressure of the material produced in each batch (psia).

d. The calculated vapor molecular weight of the material produced in each batch (lb/lb-mole).

e. The average temperature of the mixer when in operation (degrees R).

f. The batch time (hours/batch).

g. The open area of the mixer (square feet).

h. The partial pressure of each VOC in each mixer head space (psia).

i. The calculated gas vapor pressure in each mixer (psia).

j. The average initial and final gas temperatures (degrees R).

k. The determination of the displacement, evaporation, and heat up OC losses mixed/stored in the mixer for each batch, in pounds, [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002].

l. The total calculated before-control OC emission rate for this emissions unit [the summation of the displacement, evaporation, and heat up OC losses for all batches], in pounds.

m. The total calculated controlled OC emission rate for this emissions unit, in pounds per day, [the value calcualted in (l) multplied by a control efficiency of 99% (l x(1-0.99)) per the condenser design evaluation conducted according to equations in 40 CFR 63.1257(d) and removal efficiency of 18 pounds of methylene chloride per 180 pounds of activated carbon as specified bt the activated carbon manufacturer].

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

n. Documentation of whether or not the products mixed in this emissions unit contain methylene chloride.

o. The identification number of each new activated carbon canister that is installed prior to processing methylene chloride formulations in this emissions unit.

* Displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

Evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U^0.78)x[(18/MW)^0.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

Heat up loss (lbs/batch) = [(PxT1/14.7-PxT1) + (PxT2/14.7 - PxT2)]x(0.5)x(n)x(MW)

where:

n = lb-moles of gas displaced, [(V/R)x(Pa1/T1 - Pa2/T2)]
PxT1 = partial pressure of each VOC in vessel head space at initial gas temperature (psia)
PxT2 = partial pressure of each VOC in vessel head space at final gas temperature (psia)
V = vessel head space (ft^3)
Pa1 = initial gas pressure in vessel (psia), calculated as (14.7 - PxT1)
Pa2 = final gas pressure in vessel (psia), calculated as (14.7 - PxT2)
T1 = initial gas temperature (degrees R)
T2 = final gas temperature (degrees R)

2. The permittee shall operate and maintain a continuous temperature monitor and recorder that:

a. Measures and records the temperature of the exhaust gases from the primary condenser when the emissions unit is in operation.

b. Measures and records the temperature of the exhaust gases from the secondary condenser on this emissions unit when methylene chloride fromualtions are being processed in this emissions unit.

The temperature shall be recorded in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be gauranteed by the manufacturer to be within +/- 1 percent of the temperature being measured or +/-5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

3. The permittee shall collect and record the following information each day for the primary and secondary condensers:

a. The average temperature of the exhaust gases from the condenser during each of the eight 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control devices, and monitoring equipment when the associated emissions unit was in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each day during which the organic compound emission rate from the production of mastic materials exceeded 30.4 pounds per day, and the actual organic compound emissions for each such day.

b. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the primary and secondary condensers exceeded the temperature limitation specified above.

c. An dentification of each day during which methylene chloride formulations were processed without the use of the secondary condenser and activiated carbon canister.

d. An identification of any days when methylene chloride batches were processed without the installation of a new activated canister.

2. The permittee shall submit annual reports to the Director (RAPCA) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

V. Testing Requirements

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

1.a Emission Limitation-
30.4 lbs OC/day

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
1.69 tons/yr OC

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily organic compound emission rates for the calendar year, divided by 2000 pounds/ton.

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK A WIP Tank (P024)

Activity Description: Temporary storage of work-in-progress contact cement. (Formerly Z001)

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
P024 -Work-in-Progress (WIP) Tanks A through M, Tank A (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P024 -Work-in-Progress (WIP) Tanks A through M, Tank A (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK B WIP Tank (P025)

Activity Description: Temporary storage of work-in-progress contact cement. (Formerly Z002)

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
P025 -Work-in-Progress (WIP) Tanks A through M, Tank B (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P025 -Work-in-Progress (WIP) Tanks A through M, Tank B (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK C WIP Tank (P026)

Activity Description: Temporary storage of rework. (Formerly Z003)

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
P026 -Work-in-Progress (WIP) Tanks A through M, Tank C (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P026 -Work-in-Progress (WIP) Tanks A through M, Tank C (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK D WIP Tank (P027)

Activity Description: Temporary storage of work-in-progress contact cement. (Formerly Z004)

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
P027 -Work-in-Progress (WIP) Tanks A through M, Tank D (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P027 -Work-in-Progress (WIP) Tanks A through M, Tank D (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK E WIP Tank (P028)

Activity Description: Temporary storage of work-in-progress non-flammable contact cement. (Formerly Z005)

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
P028 -Work-in-Progress (WIP) Tanks A through M, Tank E (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P028 -Work-in-Progress (WIP) Tanks A through M, Tank E (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK F WIP Tank (P029)

Activity Description: Temporary storage of work-in-progress 2056 contact cement. (Formerly Z006)

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
P029 -Work-in-Progress (WIP) Tanks A through M, Tank F (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P029 -Work-in-Progress (WIP) Tanks A through M, Tank F (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK G WIP Tank (P030)

Activity Description: Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z007)

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
P030 -Work-in-Progress (WIP) Tanks A through M, Tank G (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P030 -Work-in-Progress (WIP) Tanks A through M, Tank G (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK H WIP Tank (P031)

Activity Description: Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z008)

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
P031 -Work-in-Progress (WIP) Tanks A through M, Tank H (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P031 -Work-in-Progress (WIP) Tanks A through M, Tank H (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK I WIP Tank (P032)

Activity Description: Temporary storage of work-in-progress 2084 gel contact cement. (Formerly Z009)

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
P032 -Work-in-Progress (WIP) Tanks A through M, Tank I (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P032 -Work-in-Progress (WIP) Tanks A through M, Tank I (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK J WIP Tank (P033)

Activity Description: Temporary storage of work-in-progress Panel Weld. (Formerly Z010)

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
P033 -Work-in-Progress (WIP) Tanks A through M, Tank J (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P033 -Work-in-Progress (WIP) Tanks A through M, Tank J (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK K WIP Tank (P034)

Activity Description: Temporary storage of work-in-progress D-4000. (Formerly Z011)

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
P034 -Work-in-Progress (WIP) Tanks A through M, Tank K (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P034 -Work-in-Progress (WIP) Tanks A through M, Tank K (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK L WIP Tank (P035)

Activity Description: Temporary storage of work-in-progress mastics. (Formerly Z012)

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
P035 -Work-in-Progress (WIP) Tanks A through M, Tank L (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P035 -Work-in-Progress (WIP) Tanks A through M, Tank L (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK M WIP Tank (P036)

Activity Description: Temporary storage of work-in-progress D-9 mastic. (Formerly Z013)

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
P036 -Work-in-Progress (WIP) Tanks A through M, Tank M (holding tanks for mastics and contact cements), with condenser	OAC rule 3745-31-05(A)(3) PTI 08-04137	36 lbs OC/day, 6.5 tons/yr OC (for this emissions unit) See A.I.2.a below.

2. Additional Terms and Conditions

2.a The OC emissions from emissions units P024 through P036 (Work-in-Progress Tanks A through M), combined, shall not exceed 311.2 lbs/day and 56.79 tons/yr.

II. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time during which a batch was transferred, shall not be greater than 23.0 degrees F when processing methylene chloride formulations and not greater than 35.6 degrees F when processing other adhesive formulations.

2. Formulations containing methylene chloride shall be processed in only 2 work-in-progress tanks (Work-in-Progress Tanks A through M) at any one time.

III. Monitoring and/or Record Keeping Requirements

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

a. the company identification for each batch of adhesives;

b. the total number of gallons of each batch;

c. the calculated vapor pressure of the material produced (psia) in each batch;

d. the calculated molecular weight of the material produced (lb/lb-mole) in each batch;

e. the batch temperature (degrees R);

f. the batch time (hours/batch);

g. the open area of the tank (square feet);

h. the determination of the displacement and evaporative OC losses, in pounds [in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities", updated March 2002], for each batch;

i. the sum of the displacement and evaporative losses of OC, in pounds, for all the batches; and

j. the total calculated controlled OC emissions, in pounds/day (the controlled OC emission rate shall be calculated by multiplying the uncontrolled emissions rate by a control efficiency of 75%), i.e., (i) multiplied by a factor of (1- 0.75); and

k. documentation of whether or not the formulation components processed contain methylene chloride.

displacement loss (lbs/batch) = (0.01246)x(S)x(P)x(MW)x(Q)/(T)

where:

P = vapor pressure of material loaded (psia)
S = 1.0, on the basis that the vapor space is saturated with vapors, submerged fill
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gallons)
T = temperature (degrees R)

evaporation loss (lbs/batch) = (MW)x(K)x(A)x(P)x(3600)(H)/(R)x(T)

where:

K = (0.00438)x(U ^0.78)x[(18/MW)^.33]
U = 0.1 mile per hour, from USEPA's example for indoor equipment
H = Batch Time (hours/batch)
R = universal gas constant, [(10.73 psia)(ft^3)/(lb-mole)(degrees R)]
A = open area of tank (ft^2)

2. The permittee shall collect and record for each day the total calculated controlled OC emission rate for emissions units P024 through P036, combined, in pounds [this is calculated by summing the daily OC emission rates (from section III.1.j) for emissions units P024 through P036] .

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. The temperature shall be recorded in degrees Fahrenheit. The continuous monitoring and recording devices shall be capable of accurately measuring the desired parameters. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

4. The permittee shall collect and record the following information each day:

a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.

b. A log or record of the downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was is in operation.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports which include the following information:

a. An identification of each day during which the total calculated controlled OC emissions from this emissions unit exceeded 36.0 lbs/day, and the actual OC emissions for each such day.

b. An identification of each day during which the total calculated controlled OC emissions from the work in process tanks identified as Tanks A through M exceeded 311.2 lbs/day, and the total calculated controlled OC emissions for each such day.

c. An identification of all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section A.II.1 of the terms and conditions for this emisssions unit.

d. An identification of each day that the processing of methylene chloride formulations occurred in more than 2 work-in-progress tanks.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the total calculated controlled annual OC emissions for this emissions unit and for emissions units P024 through P036, combined. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

3. The permittee shall submit quarterly summaries that include the following:

a. A log of the downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation.

b. An identification of all time periods during which formulation components containing methylene chloride were processed in this emissions unit.

V. Testing Requirements

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

1.a Emission Limitation-
36.0 lbs OC/day, for this emissions unit

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
6.50 tons/yr OC, for this emissions unit

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit and shall be the summation of the daily calculated organic compound emission rates (from section A.III.1.) for the calendar year, divided by 2000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitation-
311.2 lbs OC/day, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the daily OC emission limitation shall be determined based upon the record keeping requirements specified in Sections A.III.1. and 2. of this permit.

1.d Emission Limitation-
56.79 tons/yr OC, for emissions units P024 through P036, combined

Applicable Compliance Method-
Compliance with the annual OC emission limitation shall be based upon the record keeping requirements specified in Sections A.III.1 and 2. of this permit and shall be the summation of the daily calculated controlled organic compound emission rates, from section A.III.2. for the calendar year, divided by 2000 pounds per ton.

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
P036 -Work-in-Progress (WIP) Tanks A through M, Tank M (holding tanks for mastics and contact cements), with condenser	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr): 4.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,142

MAGLC (ug/m3): 4,486.8

Pollutant: Hexane

TLV (ug/m3): 1,762,370

Maximum Hourly Emission Rate (lbs/hr): 12.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3045

MAGLC (ug/m3): 4200

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 12

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3587

MAGLC (ug/m3): 4135

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

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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Large Elgin Can Filler (P041)

Activity Description: Formerly Gallon filling line (Formerly Z029)

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
P041 - Large Elgin Can Filler Located at the Contact Cements Packaging Line	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 5.7 lbs organic compounds (OC)/hr and 62.50 lbs OC/day on any day when employing any photochemically reactive material: 5.7 lbs OC/hr and 40 lbs OC/day 11.40 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 5.7 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 62.50 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
5.7 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
5.7 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
62.50 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
11.40 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P041 - Large Elgin Can Filler Located at the Contact Cements Packaging Line	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit (P041) was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: MEK

TLV (ug/m3): 589,770

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33.32

MAGLC (ug/m3): 14,042

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Small Elgin Can Filler (P042)

Activity Description: Mastics/contact cement can packaging line (Formerly Z030)

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
P042 - Small Elgin Can Filler located at the Packaging Line for Contact Cements and Mastics	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 4.8 lbs organic compounds (OC)/hr and 62.50 lbs OC/day on any day when employing any photochemically reactive material: 4.8 lbs OC/hr and 40 lbs OC/day 11.40 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 4.8 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 62.50 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
4.8 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
4.8 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
62.50 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
11.40 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P042 - Small Elgin Can Filler located at the Packaging Line for Contact Cements and Mastics	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: MEK

TLV (ug/m3): 589,770

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33.32

MAGLC (ug/m3): 14,042

Pollutant: Hexane

TLV (ug/m3): 176,200

Maximum Hourly Emission Rate (lbs/hr): 3.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 123

MAGLC (ug/m3): 41,952

Pollutant: Methanol

TLV (ug/m3): 262,090

Maximum Hourly Emission Rate (lbs/hr): 1.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 46.13

MAGLC (ug/m3): 6240

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 55-Gallon Drum Filler (P043)

Activity Description: Adhesive Packaging Line (Formerly part of Z031)

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
P043 - 55-Gallon Drum Filler located at the Packaging Line for Contact Cements	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 4.8 lbs organic compounds (OC)/hr and 62.50 lbs OC/day on any day when employing any photochemically reactive material: 4.8 lbs OC/hr and 40 lbs OC/day 21.16 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 4.8 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 62.50 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
4.8 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
4.8 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
62.50 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
21.16 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P043 - 55-Gallon Drum Filler located at the Packaging Line for Contact Cements	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: MEK

TLV (ug/m3): 589,770

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33.32

MAGLC (ug/m3): 14,042

Pollutant: Hexane

TLV (ug/m3): 176,200

Maximum Hourly Emission Rate (lbs/hr): 3.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 123

MAGLC (ug/m3): 41,952

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 10.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 330.6

MAGLC (ug/m3): 4135

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 5-Gallon Pail Filler (P044)

Activity Description: Adhesive Packaging Line (Formerly part of Z031)

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
P044 - 5-Gallon Pail Filler located at the Packaging Line for Contact Cements	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 5.4 lbs organic compounds (OC)/hr and 115.9 lbs OC/day on any day when employing any photochemically reactive material: 5.4 lbs OC/hr and 40 lbs OC/day 21.15 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 5.4 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 115.9 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
5.4 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
5.4 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
115.9 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
21.15 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P044 - 5-Gallon Pail Filler located at the Packaging Line for Contact Cements	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: MEK

TLV (ug/m3): 589,770

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 33.32

MAGLC (ug/m3): 14,042

Pollutant: Hexane

TLV (ug/m3): 176,200

Maximum Hourly Emission Rate (lbs/hr): 3.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 123

MAGLC (ug/m3): 41,952

Pollutant: Methylene Chloride

TLV (ug/m3): 173,680

Maximum Hourly Emission Rate (lbs/hr): 10.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 330.6

MAGLC (ug/m3): 4135

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 4-Stem Prosys Filler (P045)

Activity Description: Formerly 10 Oz. Line (Formerly Z033)

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
P045 - 4-Stem Prosys Filler	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 2.84 lbs organic compounds (OC)/hr and 69.62 lbs OC/day on any day when employing any photochemically reactive material: 2.84 lbs OC/hr and 40 lbs OC/day 12.7 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 2.84 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 69.62 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
2.84 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
2.84 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
69.62 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
12.7 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P045 - 4-Stem Prosys Filler	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: Hexane

TLV (ug/m3): 176,200

Maximum Hourly Emission Rate (lbs/hr): 3.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 123

MAGLC (ug/m3): 41,952

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 3-Stem Prosys Filler (P046)

Activity Description: Formerly 29 Oz. Line (Formerly Z034)

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
P046 - 3-Stem Prosys Filler	OAC rule 3745-31-05(A)(3) PTI 08-04233	on any day when employing only non-photochemically reactive materials: 5.16 lbs organic compounds (OC)/hr and 72.54 lbs OC/day on any day when employing any photochemically reactive material: 5.16 lbs OC/hr and 40 lbs OC/day 13.24 tons/yr (for photochemically reactive and non-photochemically reactive materials, combined)

2. Additional Terms and Conditions

2.a "Photochemically reactive material" is defined in OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information on a daily basis for the large elgin can filler :

a. the company identification for each product packaged;

b. for each day during which any photochemically reactive material is employed, the number of hours of operation;

c. for each day during which no photochemically reactive materials are employed, the number of hours of operation;

d. for each day during which any photochemically reactive material is employed, the total number of gallons employed;

e. for each day during which no photochemically reactive materials are employed, the number of gallons employed;

f. the calculated vapor pressure (psia) of each product packaged;

g. the calculated vapor molecular weight (lb/lb-mole) of each product packaged;

h. the average temperature of the product packaged (degrees R);**

i. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, of each product packaged (see below);*

j. for each day during which no photochemically reactive materials are employed, the OC emissions, in pounds, of each product packaged (see below);*

k. for each day during which any photochemically reactive material is employed, the OC emissions, in pounds, for all the products packaged (summation of i for all products);

l. for each day during which no photochemically reactive materials are employed, the OC emission, in pounds, for all the products packaged (summation of j for all products);

m. for each day during which any photochemically reactive material is employed, the average hourly OC emissions (k/b), in pounds/hr (average); and

n. for each day during which no photochemically reactive materials are employed, the average hourly OC emissions (l/c), in pounds/hr (average).

* Displacement emissions losses (lbs/batch) for each product packaged are determined in accordance with the formulas and assumptions given in the "US EPA Emission Inventory Improvement Program Volume II: Chapter 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities,"updated March 2002.

displacement losses (lb/day)= (0.01246)(S)(P)(MW)(Q)/T

Where:

P = vapor pressure of material loaded (psia)
S = 0.5 on the basis that the material is loaded into a clean container
MW = vapor molecular weight (lb/lb-mole)
Q = volume of material loaded (gal)
T = temperature (degrees R)

** based on the temperature of the product as it exits the mixer.

IV. Reporting Requirements

1. In accordance with Paragraph A.1.c. of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. On any day when any material (i.e., photochemically reactive material or non-photochemically material) was packaged, an identification of each day during which the average hourly organic compound emissions exceeded 5.16 lbs/hr, and the actual average hourly organic compound emissions for each such day.

b. On any day when any photochemically reactive material was packaged, an identification of each day during which the organic compound emissions exceeded 40.0 lbs/day, and the actual average hourly organic compound emissions for each such day.

c. On any day when only non-photochemically reactive materials were packaged, an identification of each day during which the organic compound emissions from the packaging of the products exceeded 72.54 lbs/day, and the actual average hourly organic compound emissions for each such day.

2. The permittee shall submit annual reports to the Director (local air agency) that summarize the actual annual OC emissions for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

1.a Emission Limitations-
5.16 lbs OC/hr (on any day when employing only non-photochemically reactive materials)
5.16 lbs OC/hr (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the hourly allowable OC emission limitations shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.b Emission Limitation-
40 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.c Emission Limitation-
72.54 lbs OC/day (on any day when employing only any photochemically reactive material)

Applicable Compliance Method-
Compliance with the daily allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. of this permit.

1.d Emission Limitation-
12.7 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be based upon the record keeping requirements specified in Section A.III.1. and shall be the summation of the daily organic compound emission rates, divided by 2000.

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
P046 - 3-Stem Prosys Filler	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials specified by the permittee in the permit to install application. The emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

Pollutant: Toluene

TLV (ug/m3): 188,400

Maximum Hourly Emission Rate (lbs/hr): 4.23

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 135.8

MAGLC (ug/m3): 4485.0

Pollutant: Hexane

TLV (ug/m3): 176,200

Maximum Hourly Emission Rate (lbs/hr): 3.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 123

MAGLC (ug/m3): 41,952

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

2. Physical changes to or changes in the method of operation of the emissions unit that 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 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 be 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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: TK 6B - Methylene Chloride Storage Tank (T031)

Activity Description: Storage of methylene chloride (Formerly emission unit Z019)

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
T031 - 6,000-gallon fixed roof methylene chloride storage tank (TK 6B)	OAC rule 3745-31-05(A)(3) PTI 08-04307	3.19 tons/yr organic compounds (OC)
	OAC rule 3745-21-09(L)	exempt (See A.I.2.a. below.)

2. Additional Terms and Conditions

2.a In accordance with OAC rule 3745-21-09(L)(2), this storage tank is exempt from the requirements of OAC rule 3745-21-09(L)(1), because the tank has a capacity of less than 40,000 gallons.

II. Operational Restrictions

1. The maximum annual throughput of methylene chloride for this emissions unit shall not exceed 2,190,000 gallons.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform annual inspections of the white paint finish of the storage tank and make repairs, when necessary, to maintain the white tank finish in good condition.

2. The permittee shall maintain monthly records of the methylene chloride throughput, in gallons.

IV. Reporting Requirements

1. The permittee shall submit annual reports that summarize the actual annual throughput of methylene chloride for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

V. Testing Requirements

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

V. Testing Requirements (continued)

1.a Emission Limitation-
3.19 tons/yr OC

Applicable Compliance Method-
Compliance with the annual allowable OC emission limitation shall be demonstrated based upon the record keeping requirements specified in Section A.III.2. of this permit, and the formulas provided in AP-42 Chapter 7, Organic Liquid Storage Tanks, Section 7.1.3.1., Total Losses from Fixed Roof Tanks (9/1997) or the "Tanks Version 4.09" software program.

1.b Emission Limitation-
2,190,000 gallons/yr methylene chloride

Applicable Compliance Method-
Compliance with the annual methylene chloride throughput limitation shall be based upon the record keeping requirements of Section A.III.2. of this permit and shall be the sum of the monthly methylene chloride throughput for the calendar year.

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
T031 - 6,000-gallon vertical fixed roof methylene chloride storage tank (TK 6B)	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit (T031) 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: Methylene Chloride

TLV (mg/m3): 174

Maximum Hourly Emission Rate (lbs/hr): 0.70

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1,294

MAGLC (ug/m3): 4,135

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

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.

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.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

****

THIS IS THE LAST PAGE OF THE PERMIT

****

Statement of Basis For Title V Permit

Company Name	DAP Inc.
Premise Number	08-55-13-0356
Number of Non-insignificant Emissions Units	28
What makes this facility a Title V facility?	VOC, HAPS
Has each insignificant emissions unit been reviewed to confirm it meets the definition in 3745-77-01 (U)?	Yes

Part II (State and Federally Enforceable Requirements)			
Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
Part II.A.1.	N	Y	Proposed Standards (40 CFR 63 Subpart HHHHH), Miscellaneous Organic NESHAP
Part II.A.2.	N	Y	Proposed Standards (40 CFR 63 Subpart HHHHH), Miscellaneous Organic NESHAP
Part II.A.3.	35-07	N	Synthetic Minor limitations on HAP emissions from all emissions units at the facility, 9.9 TPY for any individual HAP and 24.9 TPY fall HAPs combined, on a 12-month rolling summation to avoid MACT requirements.
Part II.A.4.	77-07	N	Monthly recordkeeping requirements for facility wide 12-month rolling summation of HAPs emissions.
Part II.A.5.	77-07	N	Quarterly deviation reporting for facility wide 12-month rolling summation of HAPs emissions.
Part II.A.6.	77-07	N	Annual HAPs Emissions reporting.

C **Instructions for Part II:**

Each paragraph in Part II must be identified and the remainder of the table completed. If the SIP (not including 31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an “N” in the column under “SIP.” If the basis for the term and condition is something other than the SIP, including 3745-31-05, NSPS or MACT, a “Y” should be noted in the “Other” column, and if not, an “N” should be noted. Whether the basis for the term and condition is the “SIP” or “Other,” an explanation of each term and condition in Part II must be provided in the “Comments” section.

C If there were any “common control” issues associated with this facility, after the table for Part II, provide a summary of those issues and explain how the DAPC decided to resolve them.

Part III (Requirements Within the State & Federally Enforceable Section)										
EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
		SIP (3745-)	Other							
P005	2.31 lbs/hr OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	17.28 lbs/day OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	3.20 TPY OC	31-05(A)(3)	N	N	Y	Y	N	N	N	Rp: No reporting requirement for the TPY allowable is being required because allowable is less than 10 TPY
P012	1.28 lbs/hr OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	30.72 lbs/day OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	5.60 TPY OC	31-05(A)(3)	N	N	Y	Y	N	N	N	Rp: No reporting requirement for the TPY allowable is being required because allowable is less than 10 TPY
P014, P015, & P016	0.53 lbs/hr OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	OR: Pressure drop across the fabric filter shall be maintained at not less than 0.5 inch of water
	6.37 lbs/day OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	M: Operate and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation R.: Daily records of pressure drop across fabric filter Rp: Quarterly deviation reporting of pressure drop across fabric filter
	1.16 TPY OC	31-05(A)(3)	N	N	Y	Y	N	N	N	Rp: No reporting requirement for the TPY allowable is being required because allowable is less than 10 TPY
	0.069 lb/hr PE	31-05(A)(3)	N	Y	Y	Y	Y	N	N	ET: No emissions testing is necessary
	5% opacity	31-05(A)(3)	N	N	N	N	N	N	N	

EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
P020 & P021	38.09 lbs/day OC	31-05(A)(3)	N	Y	Y	Y	Y	N	N	OR: The average temperature of the exhaust gases from the condensers, for any 3-hr block of time, shall not be greater than 62 degrees F. Methylene chloride formulations shall not be processed in this emissions unit. M: Calculate emissions from every batch, operate and maintain continuous temperature monitor for exhaust from condensers. R: Daily records of average temperature of exhaust gases for each 3-hr time block and log of control equipment downtime. Rp: Quarterly deviation reports for exhaust temperatures from the condenser, and quarterly summaries of control equipment downtime. ET: Emissions testing is not possible due to low intermittent air flow, and heavily saturated nature of the gas stream. Misc: Temperature restrictions and removal efficiency of the condensers is based on a design evaluation conducted according to equations 40 CFR 63.1257(d).
	2.87 TPY OC	31-05(A)(3)	N	Y	Y	Y	Y	N	N	
P022	30.4 lbs/day OC	31-05(A)(3)	N	Y	Y	Y	Y	N	Y	OR: The average temperature of the exhaust gases from the condenser, for any 3-hr block of time, shall not be greater than 57 degrees F. Methylene chloride formulations shall not be processed in this emissions unit. M: Calculate emissions from every batch, operate and maintain continuous temperature monitor for exhaust from condensers. R: Daily records of average temperature of exhaust gases for each 3-hr time block and log of control equipment downtime Rp: Quarterly deviation reports for exhaust temperatures from the condenser, and quarterly summaries of control equipment downtime. ET: Emissions testing is not possible due to low intermittent air flow, and heavily saturated nature of the gas stream. Misc: Temperature restrictions and removal efficiency of the condensers is based on a design evaluation conducted according to equations 40 CFR 63.1257(d).
	1.69 TPY OC	31-05(A)(3)	N	Y	Y	Y	Y	N	N	
P023	30.4 lbs/day OC	31-05(A)(3)	N	Y	Y	Y	Y	N	Y	OR: The average temperature of the exhaust gases from the primary condenser, for any 3-hr block of time, shall not be than 57 degrees F. The average temperature of the exhaust gases from the secondary condenser, for any 3-hr block of time, shall not be greater than 23 degrees F when processing methylene chloride formulations. A new 180 lb activated carbon canister shall be installed prior to processing methylene chloride cements. M: Calculate emissions from every batch, operate and maintain continuous temperature monitor for exhaust from condensers. R: Daily records of average temperature of exhaust gases for each 3-hr time block and log of control equipment downtime Rp: Quarterly deviation reports for exhaust temperatures from condensers, methylene chloride batches when carbon canisters were not in use and quarterly summaries of control equipment downtime. ET: Emissions testing is not possible due to low intermittent air flow, and heavily saturated nature of the gas stream. Misc: Temperature restrictions and removal efficiency of the condensers is based on a design evaluation conducted according to equations 40 CFR 63.1257(d). Removal efficiency of carbon canister is based on manufacturers specifications.
	1.69 TPY OC	31-05(A)(3)	N	Y	Y	Y	Y	N	N	

EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
P024, P025 P026, P027, P028, P029, P030, P031, P032, P033, P034, P035, &P036	36.0 lbs/day OC	31-05(A)(3)	N	Y	Y	Y	Y	Y	Y	OR: The average temperature of the exhaust gases from the condenser, for any 3-hr block of time when material is transferred to the tanks, shall not be greater than 23 degrees F when processing methylene chloride formulations and 36.5 degrees F when processing non-methylene chloride formulations. Methylene chloride formulations shall only be processed in two tanks at any one time. M: Operate and maintain continuous temperature monitor for exhaust gas from condensers. R: Daily emissions calculations, records of average temperature of exhaust gases for each 3-hr time block and log of control equipment downtime. Rp: Quarterly deviation reports for exhaust temperatures from the condenser, quarterly summaries of control equipment downtime., days in which methylene chloride was processed in more than two WIP tanks. ET: Emissions testing is not possible due to low intermittent air flow, and heavily saturated nature of the gas stream. Misc: 75% removal efficiency is based on temperature limits of 40 CFR 63, Subpart HHHHH.
	6.5 TPY OC	31-05(A)(3)	N	Y	Y	Y	Y	N	N	
	311.2 lb/day and 56.79 TPY OC combined emissions for P024-P036	31-05(A)(3)	N	Y	Y	Y	Y	N	N	
P041	5.7 lbs/hr and 62.5 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	5.7 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	11.40 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	

EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
P042	4.8 lbs/hr and 62.5 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	4.8 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	11.40 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	
P043	4.8 lbs/hr and 115.72 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	4.8 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	21.16 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	

EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
P044	5.4 lbs/hr and 115.9 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	5.4 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	21.15 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	
P045	2.84 lbs/hr and 69.62 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	2.84 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	12.7 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	

EU(s)	Limitation	Basis		OR	M	R	Rp	ET	Misc	Comments
P046	5.16 lbs/hr and 72.54 lbs/day OC on any day that non-PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	ET: No emissions testing is necessary
	5.16 lbs/hr and 40 lbs/day OC on any day that PRMs are employed	31-05(A)(3)	N	N	Y	Y	Y	N	N	
	13.24 TPY OC	31-05(A)(3)	N	N	Y	Y	Y	N	N	

EU = emissions unit id
OR = operational restriction
M = monitoring requirements
R = recordkeeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

- **Instructions for Part III:**

  - All non-insignificant EUs must be included in this table. For each EU, or group of similar EUs, each emission limitation and control requirement specified in section A.I.1 and A.I.2 of the permit must be identified and the remainder of the table completed.

  - If the SIP (not including 31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an "N" in the column under "SIP." If the basis for the term and condition is something other than the SIP, including 3745-31-05, NSPS or MACT, a "Y" should be noted in the "Other" column, and if not, an "N" should be noted. If the basis for the term and condition is "Other," an explanation of the basis must be provided in the "Comments" section.

    To complete the remainder of the table after "Basis," except for the "Comments" section, simply specify a "Y" for yes or an "N" for no. For the "M", "R", "Rp" and "ET" columns, if "N" is specified, there should be a brief explanation in the "Comments" section as to why there are no comments. Also, if a "Y" is noted under "OR" or "Misc," an explanation of the requirements should be provided in the "Comments" section. In addition to a general explanation of the "OR" and/or "Misc," the following should be provided:

    1. For an operational restriction, clarify if appropriate monitoring, recordkeeping, reporting requirements have been specified for the operational restriction and indicate whether or not CAM is currently applicable.
    2. If a control plan and schedule is included in the "Miscellaneous Requirements" section of the permit, provide an explanation in the

"Comments" section of the violation, basis for the violation, and the company's proposed control plan and schedule.

3. If superseding language is included in the "Miscellaneous Requirements" section of the permit, explain which requirements are being superseded and which requirements are being superseded on the State-only side of the permit and why they are on the State-only side.

An explanation is not required if an "N" is noted in the "OR" column or in the "Misc" column.

- Any unusual requirements or aspects of the terms and conditions in Part III that are not self-explanatory should be explained in a paragraph following the table for Part III.