



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
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Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

10/23/02

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

01-65-01-0004
DuPont-Circleville
Michael J Taylor N/A
800 DuPont Road
P.O. Box 89, Route 23 South
Circleville, OH 43113-9107

Dear Michael J Taylor:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Central District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Central District Office.

Very truly yours,

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

cc: USEPA (electronically submitted)
File, DAPC PMU
Central District Office



State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 10/23/02

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 01-65-01-0004 to:

DuPont-Circleville
800 DuPont Road
P.O. Box 89, Route 23 South
Circleville, OH 43113-9107

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B001 (POWER BOILER #1), P005 (TEFLON T-2 ON-LINE TREATER), P027 (KAPTON REFRIGERATION SYSTEM), etc.

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.

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

Central District Office
3232 Alum Creek Drive
PO Box 1049
Columbus, OH 43216-1049
(614) 728-3778

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. *State and Federally Enforceable Section*

1. **Monitoring and Related Record Keeping and Reporting Requirements**

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

- i. The date, place (as defined in the permit), and time of sampling or measurements.
- ii. The date(s) analyses were performed.
- iii. The company or entity that performed the analyses.
- iv. The analytical techniques or methods used.
- v. The results of such analyses.
- vi. The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

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

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

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **For emission limitations, operational restrictions, and control device operating parameter limitations:**

(a) Written reports of (i) any deviations from federally enforceable 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 taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the

deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))

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

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

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

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and

reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

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

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

2. Scheduled Maintenance/Malfunction Reporting

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

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

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

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

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

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

7. Fees

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

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

8. Marketable Permit Programs

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

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

9. Reasonably Anticipated Operating Scenarios

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

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

10. Reopening for Cause

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

11. Federal and State Enforceability

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

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

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

- i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

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

14. Operational Flexibility

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

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

15. Emergencies

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

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

16. Off-Permit Changes

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

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

17. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

18. Insignificant Activities

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

(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

(Authority for term: OAC rule 3745-77-07(A)(1))

B. State Only Enforceable Section

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

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

2. Records Retention Requirements

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

3. Inspections and Information Requests

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

shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

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

5. Permit Transfers

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

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

B. State Only Enforceable Section

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

G001 gasoline dispensing facility with aboveground storage tank, 1000-gallon
N003 Teflon "Procedyne" unit (burn off oven)
P007 coating tower "A"
P021 SP Resin solvent recovery facility 1
P022 film stabilization oven
P028 Kapton adhesion treater
P031 Mylar ED treater 2
P032 Mylar ED treater 3
P033 Mylar ED treater 1
P055 Teflon T-160 reclaim system
P056 Teflon special resins and feed system
P057 Teflon T-100 reclaim system
P058 Teflon T-100 silo
P068 Kapton casting trim system
P069 Kapton finishing trim system
T002 fuel oil tank 2 (south tank), 490,000-gallon
T003 SP Resin 50,000-gallon collected solvent tank
T004 SP Resin 25,000-gallon pyridine storage tank
T005 SP Resin 30,000-gallon acetone storage tank
T006 Kapton 2 collected solvent storage tank, 60,000-gallon
T007 Kapton DMAC supply tank, 100,000-gallon
T008 SP Resin intermediate pyridine storage tank
T025 Mylar "Kelite" tank
T026 Kapton DMAC check tank, 8,000-gallon
T027 Kapton east beta-picoline storage tank, 16,000-gallon
T028 Kapton DMAC reserve storage tank, 30,000-gallon
T029 Kapton west beta-picoline storage tank, 16,000-gallon
T030 Kapton acetic anhydride storage tank, 16,000-gallon
T031 Kapton 1 collected solvent storage tank, 60,000-gallon
T032 Telfon acetone storage tank
T035 Mylar area - sulfuric acid storage tank
T037 power lube-oil storage tank
T041 Mylar 50% caustic storage tank
T042 Mylar kerosene storage tank
T044 power area - fuel oil above ground storage tank
T045 Kapton nitric acid storage tank
T046 Kapton "Kelite" storage tank "K"
T048 Mylar nitric acid storage tank "M"
T049 power area inhibitor storage tank
T050 Kapton solvent recycle acetic acid storage tank
T051 Kapton solvent recycle caustic storage tank
T053 SP Resin 20,000-gallon waste water storage tank

B. State Only Enforceable Section (continued)

Z004 northwest, northeast, southeast, southwest "Euro-Tankers"
Z005 SP Resin pyridine loading rack
Z006 SP Resin PAA filter "Kelite" process wash station
Z007 SP Resin on-road waste water tanker loading rack
Z008 SP Resin solvent recycle decanter water tank
Z009 SP Resin tank farm sump
Z010 SP Resin vent header relief knock-out tank
Z011 SP Resin first, second and third floor fugitive emissions
Z012 SP Resin solvent recycle fugitive emissions
Z013 SP Resin pyridine flush of monomer drop chute
Z014 SP Resin dryer A, B, C, D and ST in-line filter change
Z015 SP Resin graphite weigh building
Z016 SP Resin first floor sump by DI water filters
Z017 SP Resin test solvent tank
Z018 SP Resin tank farm sampling of acetone, pyridine and solvents
Z019 SP Resin cold solvent parts cleaners
Z020 SP Resin line 1 and 2 waste water basement tank
Z021 SP Resin solvent recycle wicking ditch collection tank
Z022 SP Resin dryer A, B, C, D and ST heating oil head tank
Z023 SP Resin north shed lift station tank
Z024 SP Resin parking lots and roadways
Z025 ST Resin filter cake discharge chute, loading station and bag vent
Z026 SP Resin cutter room operation
Z027 ST Resin fugitive emissions collection system
Z028 ST rotary vacuum filter acetone filter change
Z029 ST resin wet cake bagging operation
Z030 ST resin and solvent recycle column wash water unloading station to decanter water tank
Z031 acetone loading rack
Z032 collected solvent loading rack
Z033 SP Resin QC lab
Z034 SP Resin exhaust fan for restricted room entry way
Z035 SP Resin hazardous waste satellite accumulation areas
Z036 SP Resin open rosenmund filter domes for "sniff" check
Z037 SP Resin waste oil storage in transport tanks
Z038 SP Resin vacuum pump oil dispensing station
Z039 SP Resin fugitive oil emissions, SP oil heater room
Z040 SP Resin miscellaneous organic stream filter changes, north shed
Z041 SP Resin monomer conveying room, operator change room exhaust

B. State Only Enforceable Section (continued)

- Z042 SP Resin work uniform laundry station clothes dryer vent
- Z043 SP Resin warehouse fork truck battery charging station
- Z044 SP Resin "Enclean" tank
- Z045 SP Resin Process samples from imidizers into flash can
- Z046 SP Resin change filters on imidizer heating system
- Z047 SP Resin transfer materials to mezzanine catch pot
- Z048 SP Resin PAA filter change at imidizers
- Z049 SP Resin fugitive oil emissions, ST oil heater room
- Z050 SP Resin "Kelite" pumping station for column cleaning
- Z051 SP Resin cyclohexane unloading station
- Z052 SP Resin thin-film evaporator drum-out station
- Z053 SP Resin solvent recycle cooling tower water treatment chemical metering station
- Z054 SP Resin maintenance activities
- Z056 Kapton asbestos removal from any location
- Z057 Kapton line 1 first floor "old bayport" pre-polymer loading rack
- Z058 Kapton line 1 first floor casting and raw polymer ditch station
- Z059 Kapton line 1 first floor wind up and central vacuum cleaner
- Z060 Kapton line 1 first floor DMAC filters from tank farm filter change activity
- Z061 Kapton line 1 first floor collected solvent storage tank
- Z062 Kapton line 1 first floor pre-polymer storage tank
- Z063 Kapton line 1 pit fugitive emissions from H&V exhaust
- Z064 Kapton line 1 pit collected solvent filter changes
- Z067 Kapton line 1 equipment room methylene chloride loading rack to head tank
- Z068 Kapton line 1 equipment room suit laundry dryer
- Z069 Kapton line 1 equipment room finisher glycol/water system, heat exchanger blow-down vents
- Z070 Kapton line 1 equipment room fugitive emissions from H&V exhaust
- Z071 Kapton line 1 equipment room collected solvent filter changes
- Z072 Kapton line 1 casting area fugitives not captured by recycle air
- Z073 Kapton line 1 chemical area wash station with hood
- Z074 Kapton line 1 chemical area polymer filter change for "E" film and other types

- Z075 Kapton line 1 chemical area finishing area storage tank room with fugitive emission pick-ups
- Z076 Kapton line 1 chemical area finishing south storage tank vent
- Z077 Kapton line 1 chemical area finishing south storage tank vent
- Z078 Kapton line 1 chemical area "Triplex" pump general exhaust
- Z079 Kapton line 1 chemical area "Triplex" drains to pit tank
- Z080 Kapton line 1 chemical area bleed-in buckets
- Z081 Kapton line 1 chemical area continuous finishing ditch station
- Z082 Kapton line 1 chemical area "Triplex" pump general exhaust
- Z083 Kapton line 1 chemical area "Triplex" drains to pit tank
- Z084 Kapton line 1 chemical area "Triplex" pumps fugitive emissions
- Z085 Kapton line 1 chemical area local slot hoods and fume exhaust
- Z086 Kapton line 1 chemical area outside polymer ditch station
- Z087 Kapton line 1 chemical area general fugitive emissions
- Z088 Kapton line 1 chemical area monomer/polymer make up room
- Z089 Kapton line 1 chemical area polymer pre-filter blowdown and removal and/or changes
- Z090 Kapton line 1 chemical area east and west finishers
- Z091 Kapton line 1 chemical area filter wash room fume removal pick up
- Z092 Kapton line 1 roof oil catch pot for condensed oil mist off of "stokes" oil pump for hydraulic motors on old chemical area finishers
- Z093 Kapton line 1 roof used oil drop station to transport drum/tank
- Z094 Kapton line 1 roof polymer deaerator vacuum pump
- Z095 Kapton line 1 KA-5 first floor filters and sampling points
- Z096 Kapton line 1 KA-5 second floor additive drop station with filters
- Z097 Kapton line 1 courtyard glycol/water storage tank and loading rack
- Z098 Kapton line 2 first floor wind-up flipper plate dust removal system
- Z099 Kapton line 2 first floor casting end raw polymer ditch station
- Z100 Kapton line 2 first floor mixer flush to collected solvent tank
- Z101 Kapton line 2 pit H&V for exhaust fugitive
- Z102 Kapton line 2 pit collected solvent filter changes
- Z103 Kapton line 2 pit tunnel room exhaust

B. State Only Enforceable Section (continued)

- Z104 Kapton line 2 casting area fugitives not captured by recycle air
- Z105 Kapton line 2 chemical area east and west continuous finishing ditch station
- Z106 Kapton line 2 chemical area finisher solution pump fugitive emissions
- Z107 Kapton line 2 chemical area "Triplex" pump fugitive emissions
- Z108 Kapton line 2 chemical area "Triplex" pump general exhaust
- Z109 Kapton line 2 chemical area "Triplex" drains to pit tank
- Z110 Kapton line 2 chemical area bleed-in buckets
- Z111 Kapton line 2 KA-5 sample taps and fugitive emissions
- Z112 Kapton line 2 roof polymer deaerator vacuum pump
- Z113 Kapton line 2 courtyard glycol/water storage tank loading rack
- Z114 Kapton line 2 courtyard scrubber tower drain container
- Z115 Kapton line 2 courtyard tenter pin vacuum pump
- Z116 Kapton line 2 courtyard glycol/water storage tank
- Z117 Kapton chemical building monomer handling room fugitive emissions
- Z118 Kapton chemical building fume and dust removal system local pick ups
- Z119 Kapton chemical building monomer storage and weigh bins fugitive emissions
- Z120 Kapton chemical building pre-polymer filter change/clean/reassembly
- Z121 Kapton chemical building solvent sump tank
- Z122 Kapton chemical building CRL tank/container loading station
- Z123 Kapton chemical building monomer bins plug removal ports
- Z124 Kapton chemical building seal pot drain system
- Z125 Kapton chemical building pigging station DMAC flush
- Z126 Kapton chemical building monomer storage area
- Z127 Kapton chemical building H&V glycol/water supply tank loading rack
- Z128 Kapton chemical building monomer drum compactor
- Z129 Kapton chemical building polymer ditch station
- Z130 Kapton solvent recycle ECR "halon" fire suppression system
- Z131 Kapton solvent recycle TCA building sump fugitive emissions
- Z132 Kapton solvent recycle burner area fugitive emissions
- Z133 Kapton solvent recycle burner area sump
- Z134 Kapton solvent recycle 4th level relief valve scrubber

- Z135 Kapton solvent recycle 2nd level dehy feed filter change activity
- Z136 Kapton solvent recycle 1st level liquid fuel filter change activity
- Z137 Kapton solvent recycle 1st level DMAC feed filter change activity
- Z138 Kapton solvent recycle 1st level acetic acid strainer change activity
- Z139 Kapton solvent recycle 1st level dehy bottoms strainer change activity
- Z140 Kapton solvent recycle drum storage building fugitive emissions
- Z141 Kapton tank farm fugitive emissions
- Z142 Kapton tank farm collected solvent feed pump strainer change activity
- Z143 Kapton tank farm DMAC check tank filter change activity
- Z144 Kapton tank farm loading racks for acetic acid, B-picoline, collected solvent and DMAC
- Z145 Kapton tank farm product filter change activity for DMAC, acetic anhydride and B-picoline
- Z146 Kapton finishing area machines 13, 14, and 36 web cleaners
- Z147 Kapton finishing area whole house vacuum cleaning system
- Z148 Kapton finishing area clean room air discharge
- Z149 Kapton finishing area core cutting operations
- Z150 Kapton maintenance bead blaster for parts cleaning
- Z151 Kapton emergency retention basin
- Z152 Kapton line 1 pit rail coolant tank
- Z153 Kapton line 1 pit rail lubricant dispensing station
- Z154 Kapton line 1 pit rail coolant dispensing station
- Z155 Kapton line 1 pit ammonia solution dispensing station
- Z156 Kapton line 1 pit drip catch pot
- Z157 Kapton line 1 pit chain tightener hydraulic system, oil reservoir
- Z158 Kapton line 1 pit sump and sump pump
- Z159 Kapton line 1 pit excess rail lubrication receiving drum
- Z160 Kapton line 1 pit chain tension pump and oil reservoir
- Z161 Kapton line 1 pit die stand hydraulic pump reservoir
- Z162 Kapton line 1 pit oil and water collection station
- Z163 Kapton line 1 pit methylene chloride collection station
- Z164 Kapton line 1 chemical area filter wash station caustic tank
- Z165 Kapton line 1 chemical area water treatment chemical dispensing station

B. State Only Enforceable Section (continued)

Z166 Kapton line 1 chemical area "Kelite" storage tank
Z167 Kapton line 1 chemical area pre-polymer make-up tank
Z168 Kapton line 1 chemical area finishing solution make-up tank
Z169 Kapton line 1 chemical area countinous finishing deaerator tank
Z170 Kapton line 1 chemical area DMAC feed tank
Z171 Kapton line 1 chemical area B-picoline feed tank
Z172 Kapton line 1 chemical area B-picoline test tank
Z173 Kapton line 1 chemical area acetic anhydride test tank
Z174 Kapton line 1 chemical area acetic anhydride feed tank
Z175 Kapton line 1 equipment room water/glycol tank
Z176 Kapton line 1 KA-5 feed tank
Z177 Kapton line 1 KA-5 dilution tank
Z178 Kapton line 1 KA-5 pre-mix tank
Z179 Kapton line 1 courtyard used oil portable storage tanks
Z180 Kapton line 2 pit chain tightener hydraulic system
Z181 Kapton line 2 pit sump and sump pump
Z182 Kapton line 2 pit excess rail lubricant receiving drum
Z183 Kapton line 2 pit chain tension pump and oil reservoir
Z184 Kapton line 2 pit die stand hydraulic pump reservoir
Z185 Kapton line 2 pit oil and water collection station
Z186 Kapton line 2 pit methylene chloride collection station
Z187 Kapton line 2 pit rail coolant tank
Z188 Kapton line 2 pit rail lubricant dispensing station
Z189 Kapton line 2 pit rail coolant dispensing station
Z190 Kapton line 2 pit ammonia solution dispensing station
Z191 Kapton line 2 pit drip catch pot
Z192 Kapton line 2 chemical area KA-5 ditch station and slot hood
Z193 Kapton line 2 chemical area polymer ditch tank
Z194 Kapton line 2 courtyard used oil portable storage tanks
Z195 Kapton line 2 slurry room glycol/water expansion tank
Z196 Kapton line 2 KA-5 second floor feed tank
Z197 Kapton line 2 KA-5 transfer tank
Z198 Kapton line 2 KA-10 feed tank
Z199 Kapton line 2 KA-10 make-up tank
Z200 Kapton line 2 K-2, KA-5 transfer/KA-10 make-up room TBTO make-up station tank and slot hood
Z201 Kapton line 2 tank farm organic collection tank

Z202 Kapton line 2 tank farm sump
Z203 Kapton line 2 chemical building monomer drum wash phosphoric acid mix tank
Z204 Kapton line 2 chemical building monomer drum wash surfactant mix tank
Z205 Kapton line 2 chemical building monomer housekeeping vacuum
Z206 Kapton line 2 chemical building hydraulic unit reservoir vent
Z207 Kapton line 2 chemical building drum wash collection tank
Z208 Kapton line 2 chemical building sump drain tank and pumping station
Z209 Kapton line 2 chemical building wastewater collection tank
Z210 Kapton line 2 chemical building central hydraulic system pumping station reservoir
Z211 Kapton line 2 chemical building building H&V glycol/water supply tank
Z212 Kapton line 2 solvent recycle "Syltherm" oil pressure relief tank
Z213 Kapton line 2 solvent recycle 1st level vent header sump pump
Z214 Kapton line 2 solvent recycle 1st level caustic tank
Z215 Kapton line 2 maintenance cold solvent parts cleaners
Z216 Kapton parking lots and roadways
Z217 Kapton line 1 and 2 wind up oven fugitive emissions
Z218 Kapton line 1 and 2 casting end waste gel film pack-out to "lever-paks"
Z219 Kapton chemical building polymer tank truck loading rack
Z220 Kapton chemical building polymer tank truck collection and/or containment sump
Z221 Kapton solvent recycle fugitive emissions
Z222 Kapton solvent recycle fugitive emissions from containment basin trench and sump
Z223 Kapton QC lab
Z224 Kapton chemical area building first floor lab test hood for area QC
Z225 Kapton waste oil storage in transfer tanks
Z226 Kapton hazardous waste satellite accumulation areas
Z227 Kapton line 1 fugitive emissions from pre-polymer tank pick-ups
Z228 Kapton line 1 equipment room hot water system treatment chemical dispensing station
Z229 Kapton line 1 chemical area new finisher drive hydraulic pumps oil reservoir vent
Z230 Kapton line 1 KA-5 oil dispensing station
Z231 Kapton line 1 KA-5 fugitive emissions pick-up hoods

B. State Only Enforceable Section (continued)

Z232 Kapton line 2 portable wet/dry vacuum cleaners
Z233 Kapton line 2 chemical area solvent collection funnel at "Triplex"
Z234 Kapton line 2 KA-5 transfer/KA-10 make-up fugitive emissions
Z235 Kapton line 2 KA-5 transfer/KA-10 make-up product sampling activity
Z236 Kapton line 2 slurry room fugitive emissions
Z237 Kapton tank farm sampling activity for DMAC, acetic anhydride, B-picoline, and collected solvents
Z238 Kapton chemical area portable household vacuum cleaners
Z239 Kapton chemical area sample taps and small container fill stations
Z240 Kapton chemical area water treatment chemical dispensing stations
Z241 Kapton solvent recycle "Syltherm" pump fugitive emissions
Z242 Kapton solvent recycle "Syltherm" oil sample points
Z243 Kapton solvent recycle 1,2,3,4 level sample/test points
Z244 Kapton solvent recycle 1st level toluene feed tank loading rack
Z245 Kapton solvent recycle 1st level "Syltherm" charge tank loading rack
Z246 Kapton solvent recycle 1st level caustic tank filter change activity
Z247 Kapton solvent recycle 1st level acetic acid fuel tank contaminant sump fugitive emissions
Z248 Kapton finishing area battery charge station
Z249 Kapton finishing area cleaning cart
Z250 Kapton line exempt maintenance activities in all area shops
Z251 Kapton maintenance welding
Z252 asbestos removal from any Teflon location
Z253 Teflon T-1 extrusion line
Z254 Teflon T-2 extrusion line
Z255 Teflon laminator
Z256 Teflon finishing, rewinding, slitting operations
Z257 Teflon cold solvent parts cleaners
Z258 Teflon treater-juice drain, off-line treater
Z259 Teflon film quench drum oil overflow tank
Z260 Teflon parking lots and roadways
Z261 Teflon acetone tank truck loading spot
Z262 Teflon building central vacuum system
P004 Teflon off-line treater hoods
P005 Teflon on-line treater hoods
P057 Teflon T-100 reclaim system
P055 Teflon T-160 reclaim system
Z263 Teflon QC lab
Z264 Teflon waste oil storage in transport tanks

B. State Only Enforceable Section (continued)

Z265 Teflon local exhausts for heat/fume removal
Z266 Teflon die pre-heat station
Z267 Teflon hazardous waste satellite accumulation areas
Z268 Teflon tank farm sample points for acetone
Z269 Teflon tank farm small container filling for Technical
Z270 Teflon miscellaneous fugitive emissions
Z271 Teflon sampling activities
Z274 asbestos removal from any central research lab location (CRL)
Z275 CRL wire wrappers and heat-set oven
Z276 CRL cold solvent parts cleaners
Z277 CRL exempted units within emissions unit P020
Z278 CRL SSP hot oil drain tanks
Z279 CRL extruder oil drain tank
Z280 CRL extruder zone 5 vacuum pump
Z281 CRL extruder polymer hot oil heater expansion tank vent to drum
Z282 CRL polymer hot oil system vent tank
Z283 CRL water treatment additive drums vented
Z284 CRL parking lots and roadways
Z285 CRL meta-tech spray booth
Z286 CRL high speed semiworks film coating line from polymer die to wind-up
Z287 CRL flake bins 1,2,3
Z288 CRL building central vacuum system
Z289 CRL shredder, cyclone and waste film compactor
Z290 CRL casting on-line ED treater
Z291 CRL main building
Z292 CRL KAP/TEF applications development
Z293 CRL waste oil storage in transport tanks
Z294 CRL high speed rewinder and blower
Z295 CRL quench drum lift hydraulic fluid reservoir
Z296 CRL local exhaust for heat/fume removal
Z297 CRL hazardous waste satellite accumulation areas
Z298 CRL miscellaneous fugitive emissions
Z299 CRL sampling activities
Z302 asbestos removal from any power location
Z303 Power insulation shop saw bag filter
Z304 Power site primary sanitary treatment plant
Z305 Power used "Dowtherm" loading station
Z306 Power maintenance shop bead blaster and bag filter
Z307 Power "Dowtherm" loading rack at vaporizers
Z308 Power liquified nitrogen loading rack at air plant

B. State Only Enforceable Section (continued)

- Z309 Power methylene chloride loading rack, Kapton
- Z310 Power "Betz" loading racks
- Z311 Power sludge pumping loading rack
- Z312 Power fuel oil loading rack
- Z313 Power miscellaneous tank filling & gasoline tank area
- Z314 Power salt brine tank, salt pellet loading rack
- Z315 Power house road sump, bal. polymer tank
- Z317 Power site HVAC shop
- Z318 Power cold solvent parts cleaners
- Z319 Power air separation plant used to produce nitrogen
- Z320 Power bulk liquid nitrogen storage tank
- Z321 Power tanks containing inorganic material
- Z322 Power day tanks
- Z323 Power portable fuel tanks
- Z324 Power fuel tanks
- Z325 Power kerosene tanks
- Z326 Power diesel fuel tanks
- Z327 Power fuel oil tanks
- Z328 Power "Betz" tanks
- Z329 Power diesel fire pumps
- Z330 Power permanent diesel back-up air compressor
- Z331 Power temporary diesel air compressors
- Z332 Power roadways and parking areas
- Z333 Power used oil tanks, waste accumulation building
- Z334 Power used oil loading station
- Z335 Power fugitive emissions, waste accumulation building
- Z336 Power QC water lab power house
- Z337 Power QC water lab bio-oxidation ponds
- Z338 Power maintenance sandblasting
- Z339 Power H&V units
- Z341 Power propane tank, H&V for shop, construction
- Z342 Power maintenance welding, shop, construction
- Z343 Power maintenance grinding, shop, construction
- Z344 Power maintenance wood cutting, shop, construction
- Z345 Power waste oil storage in transport tanks
- Z346 Power hazardous waste satellite accumulation areas
- Z347 Power insulation shop general ventilation
- Z348 Power contract painting operation, TC-3
- Z349 Power contract metal-working operations, TC-3
- Z350 Power contract carpentry operation, TC-3
- Z351 Power miscellaneous fugitive emissions
- Z352 Power sampling activities

- Z355 Power fairmont - battery charging station
- Z356 Power fairmint - drum storage area dike sump

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

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: POWER BOILER #1 (B001)

Activity Description: CONFIDENTIAL.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 36 mmBtu/hr - power boiler no. 1	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(D)	When firing no. 2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu of actual heat input.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas or no. 2 fuel oil in this emissions unit.
- The quality of the oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs/mmBtu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

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

3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with ASTM method D4294 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Ohio EPA, Central District Office in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section A.III above. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the deviation occurs.

V. Testing Requirements

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

1.a Emission Limitation:

Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.

Applicable Compliance Method:

When firing natural gas, compliance with this emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (36,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of particulates/mmft³), and dividing by the maximum hourly heat input capacity of the emissions unit (36 mmBtu/hr).

When firing no. 2 fuel oil, compliance with this emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (235 gallons/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for filterable particulates in no. 2 fuel oil combustion (2 lbs of particulates/1000 gallons), and dividing by the maximum hourly heat input capacity of the emissions unit (36 mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing no. 2 fuel oil.

1.b Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission Limitation:
When firing no. 2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with the allowable sulfur dioxide emission limitation may be demonstrated by documenting the sulfur content of each shipment of oil received during a calendar month.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing no. 2 fuel oil.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 36 mmBtu/hr - power boiler no. 1	none	none

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: POWER BOILER #2 (B002)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 36 mmBtu/hr - power boiler no. 2	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(D)	When firing no. 2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu of actual heat input.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas or no. 2 fuel oil in this emissions unit.
- The quality of the oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs/mmBtu of actual heat input.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

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

3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with ASTM method D4294 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall notify the Ohio EPA, Central District Office in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section A.III above. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the deviation occurs.

V. Testing Requirements

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

- 1.a Emission Limitation:
Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.

Applicable Compliance Method:

When firing natural gas, compliance with this emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (36,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of particulates/mmft³), and dividing by the maximum hourly heat input capacity of the emissions unit (36 mmBtu/hr).

When firing no. 2 fuel oil, compliance with this emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (235 gallons/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for filterable particulates in no. 2 fuel oil combustion (2 lbs of particulates/1000 gallons), and dividing by the maximum hourly heat input capacity of the emissions unit (36 mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing no. 2 fuel oil.

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

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission Limitation:
When firing no. 2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 lbs/mmBtu of actual heat input.

Applicable Compliance Method:
Compliance with the allowable sulfur dioxide emission limitation may be demonstrated by documenting the sulfur content of each shipment of oil received during a calendar month.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing no. 2 fuel oil.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 36 mmBtu/hr - power boiler no. 2	none	none

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: POWER BOILER #3 (B003)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 43 mmBtu/hr - power boiler no. 3	OAC rule 3745-31-05(A)(3) (PTI 01-4851)	<p>Particulate emissions shall not exceed 0.86 lb/hr from the combustion of natural gas or no. 2 fuel oil.</p> <p>Nitrogen oxides emissions shall not exceed 6.0 lbs/hr from the combustion of no. 2 fuel oil and 5.7 lbs/hr from the combustion of natural gas.</p> <p>Carbon monoxide emissions shall not exceed 1.5 lbs/hr from the combustion of no. 2 fuel oil and 1.4 lbs/hr from the combustion of natural gas.</p> <p>Organic compound emissions shall not exceed 0.08 lb/hr from the combustion of no. 2 fuel oil and 0.24 lb/hr from the combustion of natural gas.</p> <p>Sulfur dioxide emissions shall not exceed 21.3 lbs/hr from the combustion of no. 2 fuel oil and 0.02 lb/hr from the combustion of natural gas.</p> <p>The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-17-07(A).</p> <p>See section A.1.2.a below.</p>

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-10(B)(1)	The emission limitation specified in this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(D)	The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	None, see section A.I.2.b below.

2. Additional Terms and Conditions

- 2.a** The short-term emission limitations were established to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4851.

II. Operational Restrictions

- 1. The permittee shall burn only natural gas or no. 2 fuel oil in this emissions unit.
- 2. The sulfur content of the no. 2 fuel oil shall not exceed 0.5%, by weight.

III. Monitoring and/or Record Keeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
- 3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with ASTM method D4294 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall notify the Ohio EPA, Central District Office in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section A.III above. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the deviation occurs.

V. Testing Requirements

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

- 1.a Emission Limitation:

Particulate emissions shall not exceed 0.86 lb/hr from the combustion of natural gas or no. 2 fuel oil.

Applicable Compliance Method:

When firing natural gas, compliance with this emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (41,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for total particulates in natural gas combustion (7.6 lbs of particulates/mmft³).

When firing no. 2 fuel oil, compliance with this emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (300 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-6 (9/98) for total particulates in no. 2 fuel oil combustion (2 lbs of particulates/1000 gal).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 while firing no. 2 fuel oil.

- 1.b Emission Limitation:

Nitrogen oxides emissions shall not exceed 6.0 lbs/hr from the combustion of no. 2 fuel oil and 5.7 lbs/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (41,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98) for uncontrolled NO_x in natural gas combustion (100 lbs of NO_x/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (300 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for NO_x in number two fuel oil combustion (24 lbs of NO_x/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 while firing no. 2 fuel oil.

V. Testing Requirements (continued)

1.c Emission Limitation:

Carbon monoxide emissions shall not exceed 1.5 lbs/hr from the combustion of no. 2 fuel oil and 1.4 lbs/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (41,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98) for carbon monoxide in natural gas combustion (84 lbs of CO/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (300 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for carbon monoxide in no. 2 fuel oil combustion (5 lbs of CO/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 while firing no. 2 fuel oil.

1.d Emission Limitation:

Organic compound emissions shall not exceed 0.08 lb/hr from the combustion of no. 2 fuel oil and 0.24 lb/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (41,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for total organic compounds (TOC) in natural gas combustion (11 lbs of TOC/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (300 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-3 (9/98) for total organic compounds in no. 2 fuel oil combustion (0.252 lb of TOC/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 while firing no. 2 fuel oil.

V. Testing Requirements (continued)

1.e Emission Limitation:

Sulfur dioxide emissions shall not exceed 21.3 lbs/hr from the combustion of no. 2 fuel oil and 0.02 lb/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (41,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for sulfur dioxide in natural gas combustion (0.6 lb of SO₂/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (300 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for sulfur dioxide in no. 2 fuel oil combustion (157 lbs of SO₂/1000 gal at 0.5% sulfur content).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while firing no. 2 fuel oil.

1.f Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1) while firing no. 2 fuel oil.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 43 mmBtu/hr - power boiler no. 3	none	none

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: POWER BOILER #4 (B004)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 64 mmBtu/hr - power boiler no. 4	OAC rule 3745-31-05(A)(3) (PTI 01-4851)	<p>Particulate emissions shall not exceed 1.28 lbs/hr from the combustion of natural gas or no. 2 fuel oil.</p> <p>Nitrogen oxides emissions shall not exceed 9.0 lbs/hr from the combustion of no. 2 fuel oil and 8.5 lbs/hr from the combustion of natural gas.</p> <p>Carbon monoxide emissions shall not exceed 2.25 lbs/hr from the combustion of no. 2 fuel oil and 2.13 lbs/hr from the combustion of natural gas.</p> <p>Organic compound emissions shall not exceed 0.11 lb/hr from the combustion of no. 2 fuel oil and 0.35 lb/hr from the combustion of natural gas.</p> <p>Sulfur dioxide emissions shall not exceed 31.9 lbs/hr from the combustion of no. 2 fuel oil and 0.04 lb/hr from the combustion of natural gas.</p> <p>The requirements established pursuant to this also include compliance with the requirements of OAC rules 3745-17-07(A).</p> <p>See sections A.I.2.a and A.II.2 below.</p>

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-10(B)(1)	The emission limitation specified in this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(D)	The emission limitation specified in this rule is less than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	None, see section A.I.2.b below.

2. Additional Terms and Conditions

- 2.a** The short-term emission limitations were established to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-4851.

II. Operational Restrictions

- 1. The permittee shall burn only natural gas or no. 2 fuel oil in this emissions unit.
- 2. The sulfur content of the no. 2 fuel oil used shall not exceed 0.5%, by weight

III. Monitoring and/or Record Keeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)
- 3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with ASTM method D4294 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

IV. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

IV. Reporting Requirements (continued)

2. The permittee shall notify the Ohio EPA, Central District Office in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from section A.III above. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the deviation occurs.

V. Testing Requirements

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

- 1.a Emissions Limitation:

Particulate emissions shall not exceed 1.28 lbs/hr from the combustion of natural gas or no. 2 fuel oil.

Applicable Compliance Method:

When firing natural gas, compliance with this emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (60,950 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for total particulates in natural gas combustion (7.6 lbs of particulates/mmft³).

When firing no. 2 fuel oil, compliance with this emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (450 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-6 (9/98) for total particulates in no. 2 fuel oil combustion (2 lbs of particulates/1000 gal).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 while firing no. 2 fuel oil.

- 1.b Emission Limitation:

Nitrogen oxides emissions shall not exceed 9.0 lbs/hr from the combustion of no. 2 fuel oil and 8.5 lbs/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (60,950 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98) for uncontrolled NO_x in natural gas combustion (100 lbs of NO_x/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit 450 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for NO_x in no. 2 fuel oil combustion (24 lbs of NO_x/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 while firing no. 2 fuel oil.

V. Testing Requirements (continued)

1.c Emission Limitation:

Carbon monoxide emissions shall not exceed 2.25 lbs/hr from the combustion of no. 2 fuel oil and 2.13 lbs/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (60,950 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98) for carbon monoxide in natural gas combustion (84 lbs of CO/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation shall be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (450 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for carbon monoxide in no. 2 fuel oil combustion (5 lbs of CO/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 while firing no. 2 fuel oil.

1.d Emission Limitation:

Organic compound emissions shall not exceed 0.11 lb/hr from the combustion of no. 2 fuel oil and 0.35 lb/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (60,950 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for total organic compounds (TOC) in natural gas combustion (11 lbs of TOC/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (450 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-3 (9/98) for total organic compounds in no. 2 fuel oil combustion (0.252 lb of TOC/1000 gal).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 while firing no. 2 fuel oil.

V. Testing Requirements (continued)

1.e Emission Limitation:

Sulfur dioxide emissions shall not exceed 31.9 lbs/hr from the combustion of no. 2 fuel oil and 0.04 lb/hr from the combustion of natural gas.

Applicable Compliance Method:

When firing natural gas, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (60,950 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for sulfur dioxide in natural gas combustion (0.6 lb of SO₂/mmft³).

When firing no. 2 fuel oil, compliance with the applicable emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (450 gal/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.3-1 (9/98) for sulfur dioxide in no. 2 fuel oil combustion (157 lbs of SO₂/1000 gal at 0.5% sulfur content).

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 while firing no. 2 fuel oil.

1.f Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1) while burning no. 2 fuel oil.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
natural gas and no. 2 fuel oil-fired boiler having a maximum heat input of 64 mmBtu/hr - power boiler no. 4	none	none

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: KAPTON SOLV. RECYCLE NO. 1 HEATER (B011)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle heater unit 1 fired by natural gas and organic compound emissions from P024, 10 mmBtu/hour	OAC rule 3745-31-05(A)(3) (PTI 01-1663)	Nitrogen oxides emissions shall not exceed 0.57 lb/mmBtu of actual heat input.
	OAC rule 3745-17-07(A)	The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1). Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas and the organic compound emissions from emissions unit P024 in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas or the organic compound emissions from emissions unit P024, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or the organic compound emissions from emissions unit P024 were burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

- 1.a Emission Limitation:
Nitrogen oxides emissions shall not exceed 0.57 lb/mmBtu of actual heat input.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for nitrogen oxides.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for nitrogen oxides, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test shall be conducted while the emissions unit is operating at or near its maximum capacity while co-firing natural gas and the collected organic compound emissions from emissions unit P024, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

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

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

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

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

- 1.c** Emission Limitation:
Particulate emissions shall not exceed .020 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be demonstrated by the total particulate emissions from the combustion of natural gas and from the combustion of collected organic compound emissions from emissions unit P024 as follows:

i. Particulate emissions from the combustion of natural gas may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (10,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of particulates/mmft³), and dividing by the maximum hourly heat input capacity of the emissions unit (10 mmBtu/hr).

ii. Particulate emissions from the combustion of the collected P024 emissions may be determined by the following process mass balance, provided by Dupont:

(1 pound per hour collected organic compound emissions from emissions unit P024 used in the process)* multiplied by 0.0806 (8.06% of the material is emitted), divided by the maximum hourly heat input capacity of the emissions unit (10 mmBtu/hr)

*Company supplied emission factor per letter dated 2/4/92

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas and collected organic compound emissions from emissions unit P024.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle heater unit 1 fired by natural gas and organic compound emissions from P024, 10 mmBtu/hour	none	none

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: KAPTON SOLV. RECYCLE NO. 2 HEATER (B014)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle heater unit 2, fired by natural gas and organic compound emissions from P081, 10 mmBtu/hour	OAC rule 3745-31-05(A)(3) (PTI 01-08467)	Nitrogen oxides emissions shall not exceed 7.95 lbs/hr and 29.0 tons/yr.
		Carbon monoxide emissions shall not exceed 4.11 lbs/hr and 15.0 tons/yr.
		Organic compound emissions shall not exceed 4.11 lbs/hr and 15.0 tons/yr.
		Particulate emissions shall not exceed 0.9 ton/yr.
	OAC rule 3745-17-07(A)(1)	The requirements established pursuant to this rule also include the compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1). Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The permittee shall burn only natural gas and the organic compound emissions from emissions unit P081 in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or organic compound emissions from emissions unit P081, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or organic compound emissions from emissions unit P081 were burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

- 1.a Emission Limitation:
Nitrogen oxides emissions shall not exceed 7.95 lbs/hr.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. the emission testing shall be conducted within 3 to 6 months after start up. Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission test;
- ii. the emission testing shall be conducted to demonstrate compliance with the hourly allowable mass emission rate for nitrogen oxides while burning natural gas and collected organic compound emissions from emissions unit P081;
- iii. the following test methods shall be employed to demonstrate compliance with the hourly allowable mass emission rate for nitrogen oxides: Methods 1 through 4 and 7, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
- iv. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity for collected organic compound emissions from emissions unit P081, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

- 1.b** Emission Limitation:
Nitrogen oxides emissions shall not exceed 29.0 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by summing the calculated emissions from the combustion of the collected organic compound emissions from emissions unit P081, including dimethylacetamide (DMAC), beta-picoline (B-Pic) and acetamide, and calculated emissions from the combustion of natural gas. Emissions are calculated by multiplying the maximum amount of each pollutant present in the restricted amounts of fuel used (pound per hour or pounds per year) by the percent fuel bound nitrogen by weight (%) by the molecular weight of NO₂ divided by the molecular weight of nitrogen (46/14) by the percent conversion to NO_x (%), per the PTI application received 9/28/99, as follows:

Emissions from DMAC:

$(21 \text{ lbs DMAC/hr})(16.1\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N}) (15\% \text{ conversion}) = 1.67 \text{ lbs NO}_x/\text{hr}$
 $(184,800 \text{ lbs DMAC/yr})(16.1\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N}) (15\% \text{ conversion}) / 2000 = 7.3 \text{ tons/year NO}_x$

Emissions from B-Pic:

$(5 \text{ lbs B-Pic/hr})(15.1\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(15\% \text{ conversion}) = 0.37 \text{ lb NO}_x/\text{hr}$
 $(44000 \text{ lbs B-Pic/yr})(15.1\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(15\% \text{ conversion}) / 2000 = 1.64 \text{ tons/year NO}_x$

Emissions from Acetamide:

$(30 \text{ lbs Acetamide/hr})(23.73\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(15\% \text{ conversion}) = 3.51 \text{ lbs NO}_x/\text{hr}$
 $(264000 \text{ lbs Acetamide/yr})(23.73\%N)(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(15\% \text{ conversion}) / 2000 = 15.4 \text{ tons/year NO}_x$

Emissions from natural gas:

Based on the concentration (20 ppm NO_x) measured during a stack test, dated 6/25/86, on a similar source.
 $(20 \text{ ppm NO}_x)(46 \text{ mol.wt.})(60 \text{ min}/359 \text{ scf/mole})(2600 \text{ scf}) = 0.40 \text{ lb NO}_x/\text{hr} = 1.75 \text{ tons/year NO}_x$

Total Emissions:

Total = 1.67 lbs + 0.37 lb + 3.51 lbs + 0.40 lb = 5.95 lbs NO_x/hr
Total = 7.3 tons + 1.64 tons + 15.4 tons + 1.75 tons = 26.09 tons/yr NO_x

- 1.c** Emission Limitation:
Carbon monoxide emissions shall not exceed 4.11 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly limitation may be based on the maximum stack flow from the heater of 2600 scfm multiplied by a CO stack concentration of 200 ppm (measured during a stack test, dated 6/25/86, on a similar source), multiplied by 28 (molecular weight of CO) and divided by 359 scf/lb mole, as follows:

$(2600 \text{ scfm})(0.0002 \text{ lb mole}/359 \text{ scf/lb mole})(28 \text{ mole.wt.CO})(60 \text{ min/hr})$
 $= 2.4 \text{ lbs CO/hr}$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- 1.d** Emission Limitation:
Carbon monoxide emissions shall not exceed 15.0 tons/yr.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

V. Testing Requirements (continued)

- 1.e** Emission Limitation:
Organic compound emissions shall not exceed 4.11 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly limitation may be based on summing the collected organic compound emissions from emissions unit P081, including DMAC, B-Pic, acetic acid and acetamide, and adding the OC emissions from the combustion of natural gas and multiplying by the control efficiency of 99% (based on the results of emission testing conducted in 1991), as follows:

Emissions from DMAC:

$(21 \text{ lbs DMAC/hr})(1 - 0.99 \text{ control}) = 0.21 \text{ lb OC/hr}$

Emissions from B-Pic:

$(5 \text{ lbs B-Pic/hr})(1 - 0.99 \text{ control}) = 0.05 \text{ lb OC/hr}$

Emissions from acetic acid:

$(256 \text{ lbs Acetic Acid/hr})(1 - 0.99 \text{ control}) = 2.56 \text{ lbs OC/hr}$

Emissions from acetamide:

$(30 \text{ lbs Acetamide/hr})(1 - 0.99 \text{ control}) = 0.3 \text{ lb OC/hr}$

Emissions from natural gas:

$(10,000 \text{ cu.ft. natural gas/hr})(5.8 \text{ lbs OC/MM cu.ft. [From AP-42, Table 1.4-3, (1/95)]) = 0.058 \text{ lb OC/hr}$

Total Emissions:

$0.21 \text{ lb} + 0.05 \text{ lb} + 2.56 \text{ lb} + 0.3 \text{ lb} + 0.058 \text{ lb} = 3.2 \text{ lbs OC/hr}$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

- 1.f** Emission Limitation:
Organic compound emissions shall not exceed 15.0 tons/yr.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year and dividing by 2000 pounds/ton.

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

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

- 1.h** Emission Limitation:
Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be demonstrated by the total particulate emissions from the combustion of natural gas and from the combustion of the collected organic compound emissions from emissions unit P081.

Particulate emissions from the combustion of natural gas may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (10,000 ft³/hr) by the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of particulates/mmft³), and dividing by the maximum hourly heat input capacity of the emissions unit (10 mmBtu/hr).

Particulate emissions from the combustion of the collected organic compound emissions from emissions unit P081 may be determined by the process mass balance. 1 pound per hour is used in the process, 8.06% of the material is emitted, dividing by the maximum hourly heat input capacity of the emissions unit (10 mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing natural gas and organic compound emissions from emissions unit P081.

- 1.i** Emission Limitation:
Particulate emissions shall not exceed 0.9 ton/yr.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the lb/mmBtu limitation is maintained. The annual limitation was established by multiplying the lb PE/mmBtu limitation by the emissions unit's maximum heat input capacity of 10 mmBtu/hr, multiplying by 8760 hours/year, and dividing by 2000 pounds/ton.

VI. Miscellaneous Requirements

1. The following is a summary of the netting emissions, in tons per year (TPY):

Emissions Unit	Pollutant	Decrease	Increase
B005	NOx	-3.14**	
B006	NOx	-3.51**	
B007	NOx	-3.51**	
B008	NOx	-5.26**	
B012	NOx	-3.47**	
P070	NOx	-1.16**	
P080 (PTI 01-08064) PTI Issued 7/27/00	NOx		+26.0
B014 (PTI 01-08467)	NOx		+29.0
Net Emissions Change			+34.95

** Based on the average of the actual emissions for 1997 and 1998.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle heater unit 2, fired by natural gas and organic compound emissions from P081, 10 mmBtu/hour		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

- The permit to install for this emissions unit (B014) was evaluated based on the actual 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: Acetic Acid

TLV (mg/m3): 24.5

Maximum Hourly Emission Rate (lbs/hr): 5.62

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 48.2

MAGLC (ug/m3): 583

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:

- changes in the composition of the materials used, 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;

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

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.

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: KAPTON CASTING LINE 1 (P001)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton casting line 1 with condenser and oven	OAC rule 3745-21-07(G)(1) OAC rule 3745-31-05(A)(3) (PTI 01-2071)	Organic compound emissions shall be reduced by at least 85%. Organic compound emissions from the casting line shall not exceed 68.5 lbs/hr as a 24-hour average, 34.2 lbs/hr as a rolling, 365-day average and 150 tons/rolling, 12-month period. See A.I.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(1).

2. Additional Terms and Conditions

- 2.a Kapton line 1 oven emissions shall not exceed to 67.0 lbs/hr of organic compound emissions as a 24-hour average and 33.4 lbs/hr of organic compound emissions as a rolling, 365-day average (146.7 tons/yr).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain the existing equipment to continuously monitor and record the organic compound emission rate from this emissions unit in units of pounds of organic compound emissions per hour. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous organic compound monitoring system including, but not limited to, readings of pounds of organic compounds not less than once every 15-minutes, emissions of organic compounds in units of pounds of organic compound emissions per 24-hour period, results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

The organic compound monitoring device and recorder shall be capable of satisfying the performance requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 6. The organic monitoring device and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

A statement of certification of the existing continuous organic compound monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6. Proof of certification shall be made available to the Ohio EPA, Central District Office upon request.

2. The permittee shall maintain a daily log of the down time for the capture (collection) system, control device and monitoring equipment when the associated emissions unit is in operation.
3. On a daily basis, the permittee shall calculate and record the hourly organic compound emission rates, based on CEM data and tank truck loading data, as a 24-hour average.
4. On a daily basis, the permittee shall calculate and record the total organic compound emission rate, based on CEM data and tank truck loading data, as a rolling, 365-day average.
5. On a monthly basis, the permittee shall calculate and record the organic compound emission rate, based on CEM data and tank truck loading data, as a rolling, 12-month summation.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(l) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 45 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of organic compound values in excess of the limitations specified in section A.I.1 of this permit.

The permittee shall submit reports within 45 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting any continuous organic compound monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period the monitoring system malfunctioned during the reporting period. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

IV. Reporting Requirements (continued)

2. The permittee shall submit reports on a quarterly basis to the Ohio EPA, Central District Office reporting the average hourly emission rate for each day of the previous quarter. Total downtime of the stack gas analyzer as a percent of the total operating time of the Kapton line 1 will also be included in this report. For periods when the stack gas analyzer is not operating, the hourly emission reports shall be assumed to be 68.5 pounds organic compounds per hour. The quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarter.

These quarterly reports shall include a calculation of the total organic compound emissions from this emissions unit for the previous 12 consecutive month period. This calculation shall be based on the actual monitoring data collected during the previous 12-month period except where noted above for when the stack gas analyzer is not operating.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all times during which the average organic compound emission rate exceeded 68.5 pounds per hour as a 24-hour average.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day emission limitation for organic compounds from Kapton line 1 of 34.2 lbs/hr of organic compound emissions as a rolling 365-day average.
5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for organic compounds for the Kapton line 1 casting line of 150 tons/rolling, 12-month period.
6. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii. of the General Terms and Conditions of this permit.

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:
Organic compound emissions shall be reduced by at least 85%.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. the emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration;
- ii. the emission testing shall be conducted to demonstrate compliance with the organic compound overall control efficiency;
- iii. the following test methods shall be employed to demonstrate compliance with the overall organic compound control efficiency limitation: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
- iv. the test shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitation:

Organic compound emissions shall not exceed 68.5 lbs/hr as a 24-hour average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the continuous emissions monitoring data in section A.III.3 and the emissions from Kapton line 1 chemical processing and tank truck loading. For the purpose of determining compliance with the 24-hour average organic compound emission limitation for Kapton line 1, it shall be assumed, per company data, that 1.5 pounds of organic compound emissions per hour as a 24-hour average is emitted from the Kapton line 1 chemical processing operations and tank truck loading station.

1.c Emission Limitation:

Organic compound emissions shall not exceed 34.2 lbs/hr of organic compound emissions, as a rolling, 365-day average.

Applicable Compliance Method:

Compliance shall be demonstrated based on the continuous emissions monitoring data in section A.III.4 and the emissions from Kapton line 1 chemical processing and tank truck loading. The rolling, 365-day organic compound emissions from the Kapton line 1 chemical processing area and tank truck loading station shall be assumed, per company data, to be 0.75 lb/hr as determined by engineering calculations.

1.d Emission Limitation:

Organic compound emissions shall not exceed 150 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly rolling, 12-month limitation is maintained. The annual limitation was calculated by multiplying the hourly rolling, 12-month limitation by 8760 hours/year, divided by 2000 pounds/ton.

The rolling, 12-month organic compound emissions from the Kapton line 1 chemical processing area and tank truck loading station shall be assumed, per company data, to be 3.3 tons/yr and determined by engineering calculations.

1.e Emission Limitations:

Kapton line 1 oven emissions shall not exceed to 67.0 lbs/hr of organic compound emissions as a 24-hour average and 33.4 lbs/hr of organic compound emissions as a rolling, 365-day average (146.7 tons/yr).

Applicable Compliance Method:

Compliance with these emission limitations shall be assumed as long as compliance is maintained with the emission limitations specified in section A.I.1.

V. Testing Requirements (continued)

2. Within 60 days of the effective date of this permit, the permittee shall conduct a certification of the continuous emissions monitoring pursuant to ORC section 3704.03(l) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, copies of the test results shall be sent to the Ohio EPA, Central District Office and the Ohio EPA, Central Office. Certification of the continuous volatile organic compound monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(l) and 40 CFR Part 60, Appendix B, Performance Specification 6.

VI. Miscellaneous Requirements

1. Within 180 days of the effective date of this permit, the permittee shall develop and/or maintain a written quality assurance/quality control plan for the continuous organic compound monitoring system designed to ensure continuous valid and representative readings of organic compound. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous organic compound monitoring system must be kept on site and available for inspection during regular office hours.
2. The following is a summary of the netting emissions, in tons per year (TPY):

Emissions Unit	Pollutant	Decrease	Increase
P020 (PTI 01-1150)	OC		+14.6
P099 (PTI 01-1102)	OC		+ 4.1
P021 (PTI 01-1266)	OC		+ 0.45
P016	OC	- 0.55	
P001 (PTI 01-2071)	OC	-162.0	
P015 (PTI 01-2071)	OC		+120.0
Net Emissions Change		-23.4	

** Based on the average of the actual emissions for 1985 to 1988.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton casting line 1 with condenser and oven	none	none

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: TEFLON OFF-LINE TREATER (P004)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Teflon off-line treater	OAC rule 3745-21-07(G)(2)	exempt (See A.I.2.a)

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Teflon off-line treater	none	none

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: TEFLON T-2 ON-LINE TREATER (P005)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Teflon T-2 on-line treater	OAC rule 3745-21-07(G)(2) OAC rule 3745-31-05(A)(3) (PTI 01-272)	exempt (See A.I.2.a) The requirements of this rule are equivalent to the requirements of OAC rule 3745-21-07(G)(2).

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Teflon T-2 on-line treater	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: COATING TOWER "B" (P008)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating tower B	OAC rule 3745-21-07(G)(2)	Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day. See section A.1.2.a below.

2. **Additional Terms and Conditions**

- 2.a The hourly and daily emission limitations are greater than the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping and/or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day.

Applicable Compliance Method:

Compliance may be demonstrated using the following calculation, multiplying the maximum potential coating bath usage rate by the maximum amount of vinylidene chloride (VCL2) per pound of coating:

$(300 \text{ lbs/hour of coating})(11 \text{ lbs VCL2} / 4400 \text{ lbs of coating bath}) = 0.75 \text{ lb VCL2/hour (24 hours/day)} = 18 \text{ lbs organic compounds per day}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating tower B	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: COATING TOWER "C" (P009)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating tower C	OAC rule 3745-21-07(G)(2)	Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day. See section A.1.2.a below.

2. Additional Terms and Conditions

- 2.a The hourly and daily emission limitations are greater than the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping and/or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day.

Applicable Compliance Method:

Compliance may be demonstrated using the following calculation, multiplying the maximum potential coating bath usage rate by the maximum amount of vinylidene chloride (VCL2) per pound of coating:

$(300 \text{ lbs/hour of coating bath})(11 \text{ lbs VCL2} / 4400 \text{ lbs of coating}) = 0.75 \text{ lb VCL2/hour (24 hours/day)} = 18 \text{ lbs organic compounds per day}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating tower C	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: COATING BATH STORAGE (P010)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating bath storage	OAC rule 3745-21-07(G)(2)	Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day. See section A.1.2.a below.

2. **Additional Terms and Conditions**

- 2.a The hourly and daily emission limitations are greater than the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping and/or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following method:

V. Testing Requirements (continued)

1.a Emission Limitations:

Organic compound emissions shall not exceed 8 pounds per hour and 40 pounds per day.

Applicable Compliance Method:

Compliance may be based on the results of infrared testing conducted in 1972. The emission testing demonstrated an organic compound emission rate of 0.83 lb per hour and 20 lbs per day.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coating bath storage	none	none

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: KAPTON CASTING LINE #2 (P015)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton casting line 2 with condenser, oven and baghouse	OAC rule 3745-31-05(A)(3) (PTI 01-2071)	Particulate emissions shall not exceed 0.02 grain per dry standard cubic feet, 0.05 pound per hour and 0.18 ton per year. Organic compound emissions shall not exceed 68.5 pounds per hour as a 24-hour average. Organic compound emissions shall not exceed 34.2 pounds per hour as a rolling, 365-day hourly average. Organic compound emissions shall not exceed 150 tons per rolling, 12-month period.
	OAC rule 3745-21-07(G)(1)	Organic compound emissions shall be reduced by at least 95%. The control efficiency limitation specified by this rule is less stringent than the control efficiency limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The particulate 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)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

2. Additional Terms and Conditions

- 2.a Kapton line 2 oven emissions shall be limited to 67.5 pounds organic compound as a 24-hour average and 33.7 pounds of organic compound per hour per rolling, 365-day average (147.8 tons per year).

II. Operational Restrictions

1. A stack gas analyzer (CEM) on Kapton line 2 (P015) shall be operated in accordance with the manufacturer's specifications at a minimum of 90% of the operating time of Kapton line 2 during each calendar quarter.
2. The baghouse shall be in operation at all times during which the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain the existing equipment to continuously monitor and record the organic compound emission rate from this emissions unit in units of pounds of organic compound emissions per hour. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous organic compound monitoring system including, but not limited to, readings of pounds of organic compounds not less than once every 15-minutes, emissions of organic compounds in units of pounds of pounds of organic compound emissions per 24-hour period, results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

The organic compound monitoring device and recorder shall be capable of satisfying the performance requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 6. The organic monitoring device and recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

2. The permittee shall maintain a daily log of down time for the capture (collection) system, control device and monitoring equipment when the associated emissions unit is in operation.
3. The permittee shall perform daily checks for visible emissions from the chemical processing area baghouse stack when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the baghouse stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
4. On a daily basis, the permittee shall calculate and record the hourly organic compound emission rates, based on CEM data and tank truck loading data, as a 24-hour average.
5. On a daily basis, the permittee shall calculate and record the total organic compound emission rate, based on CEM data and tank truck loading data, as a rolling, 365-day average.
6. On a monthly basis, the permittee shall calculate and record the organic compound emission rate, based on CEM data and tank truck loading data, as a rolling, 12-month summation.

IV. Reporting Requirements

1. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(l) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 45 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of organic compound values in excess of the limitations specified in section A.I.1 of this permit.

The permittee shall submit reports within 45 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting any continuous organic compound monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period the monitoring system malfunctioned during the reporting period. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall submit reports on a quarterly basis to the Ohio EPA, Central District Office reporting the average hourly emission rate for each day of the previous quarter. Total downtime of the stack gas analyzer as a percent of the total operating time of the Kapton Line 2 will also be included in this report. For periods when the stack gas analyzer is not operating, the hourly emission reports shall be assumed to be 68.5 pounds organic compounds per hour.

These quarterly reports shall include a calculation of the total organic compound emissions from this emissions unit for the previous 12 consecutive month period. This calculation shall be based on the actual monitoring data collected during the previous 12-month period except where noted above for when the stack gas analyzer is not operating.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all times during which the average hourly organic compound emission rate exceeded 68.5 lbs/hr as a 24-hour average.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day emission limitation for organic compounds from Kapton line 2 of 34.2 lbs/hr of organic compound emissions as a rolling, 365-day average.
5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for organic compounds for the Kapton line 2 casting line of 150 tons/rolling, 12-month period.
6. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii. of the General Terms and Conditions of this permit.
7. The permittee shall submit quarterly written reports identifying all days during which any visible particulate emissions were observed from the chemical processing area baghouse stack and any corrective actions taken to eliminate the visible particulate emissions. Quarterly emissions reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarter.

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:

V. Testing Requirements (continued)

1.a Emission Limitation:
Particulate emissions shall not exceed 0.02 grain per dry standard cubic feet.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. the emission testing shall be conducted within 3 months after issuance of this permit and within 6 months prior to permit expiration;
- ii. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions;
- iii. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates for particulate emissions: Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
- iv. the test shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

- 1.b** Emission Limitation:
Particulate emissions shall not exceed 0.05 lb/hr.

Applicable Compliance Method:

Compliance with the hourly limitation may be determined based on the following calculations for particulate emissions from the restricted room exhaust and the bin vent exhaust:

The restricted room exhaust emissions are based on a maximum conveying rate of 21,000 pounds per hour, 6.0% estimated spillage, 90% capture efficiency and 99.97% control efficiency.
 $(21,000 \text{ lbs/hr})(0.06)(1-0.9)(1-0.9997) = 0.04 \text{ lb/hr}$

The bin vent exhaust emissions are based on a maximum conveying rate of 21,000 pounds per hour, 0.20% estimated spillage, 90% capture efficiency and 99.97% control efficiency.
 $(21,000 \text{ lbs/hr})(0.002)(1-0.9)(1-0.9997) = 0.001 \text{ lb/hr}$

Total calculated estimated particulate emissions are 0.041 lb/hr.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.c** Emission Limitation:
Particulate emissions shall not exceed 0.18 ton/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short-term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.d** Emission Limitation:
Organic compound emissions shall not exceed 68.5 lbs/hr as a 24-hour average.

Applicable Compliance Method:

Compliance may be demonstrated based on the continuous emissions monitoring data in section A.III.4 and the emissions from Kapton line 2 chemical processing. For the purpose of determining compliance with the 24-hour average organic compound emission limitation for Kapton line 2, it shall be assumed that 1.0 pound organic compounds per hour as a 24-hour average is emitted from the Kapton line 2 chemical processing operations.

- 1.e** Emission Limitation:
Organic compound emissions shall not exceed 34.2 lbs/hr as a rolling, 365-day hourly average.

Applicable Compliance Method:

Compliance may be demonstrated based on the continuous emissions monitoring data in section A.III.5 and the emissions from Kapton line 2 chemical processing. The rolling, 365-day organic compound emissions from the Kapton line 2 chemical processing operations shall be assumed to be 0.5 lb/hr as determined by engineering calculations.

- 1.f** Emission Limitation:
Organic compound emissions shall not exceed 150 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly rolling, 12-month limitation is maintained. The annual limitation was calculated by multiplying the hourly rolling, 12-month limitation by 8760 hours/year, divided by 2000 pounds/ton.

The rolling, 12-month organic compound emissions from the Kapton line 2 chemical processing operations shall be assumed to be 2.2 tons/yr as determined by engineering calculations.

V. Testing Requirements (continued)

1.g Emission Limitations:

Kapton line 2 oven emissions shall be limited to 67.5 pounds organic compound as a 24-hour average and 33.7 pounds of organic compound per hour per rolling, 365-day average (147.8 tons per year).

Applicable Compliance Method:

Compliance with these emission limitations shall be assumed as long as compliance is maintained with the emission limitations specified in section A.I.1.

1.h Emission Limitation:

Organic emissions shall be reduced by at least 95%.

Applicable Compliance Methods:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

i. the emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration;

ii. the emission testing shall be conducted to demonstrate compliance with the overall emission reduction requirement for organic compounds;

iii. the following test methods shall be employed to demonstrate compliance with the overall emission reduction requirement for organic compounds: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and

iv. the test shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.i Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

2. Within 60 days of the effective date of this permit, the permittee shall conduct a certification of the continuous emissions monitoring pursuant to ORC section 3704.03(l) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, copies of the test results shall be sent to the Ohio EPA, Central District Office and the Ohio EPA, Central Office. Certification of the continuous volatile organic compound monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(l) and 40 CFR Part 60, Appendix B, Performance Specification 6.

VI. Miscellaneous Requirements

1. Within 180 days of the effective date of this permit, the permittee shall develop and/or maintain a written quality assurance/quality control plan for the continuous organic compound monitoring system designed to ensure continuous valid and representative readings of organic compound. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous volatile organic compound monitoring system must be kept on site and available for inspection during regular office hours.
2. The following is a summary of the netting emissions, in tons per year (TPY):

Emissions Unit	Pollutant	Decrease	Increase
P020 (PTI 01-1150)	OC		+14.6
P099 (PTI 01-1102)	OC		+ 4.1
P021 (PTI 01-1266)	OC		+ 0.45
P016	OC	- 0.55	
P001 (PTI 01-2071)	OC	-162.0	
P015 (PTI 01-2071)	OC		+120.0
Net Emissions Change		-23.4	

** Based on the average of the actual emissions for 1985 to 1988.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton casting line 2 with condenser, oven and baghouse	none	none

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: SP RESIN FACILITY, LINE #1 & #2 (P017)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin production facility, line 1 with thermal oxidizer downstream of a baghouse	OAC rule 3745-31-05(A)(3) (PTI 01-3039)	Particulate emissions shall not exceed 0.6 pound per hour and 2.6 tons per year.
		The particulate emissions shall be reduced by at least 99.5%.
		Organic compound emissions shall not exceed 4.7 pounds per hour and 20.6 tons per year.
		No visible particulate emissions
		The requirements established pursuant to this rule also include compliance with the requirements of OAC rule 3745-21-07.
	OAC rule 3745-21-07(G)	The organic compound emissions shall be reduced by at least 85%.
	OAC rule 3745-17-07(A)	The visible particulate emission limitations specified by this rule are less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The particulate 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. A combustion temperature of not less than 650 degrees F shall be maintained for the gases within the thermal oxidizer.

III. Monitoring and/or Record Keeping Requirements

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

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

- a. all times during which the temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 650 degrees F; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall perform daily checks for visible emissions from the thermal oxidizer stack when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the thermal oxidizer stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the thermal oxidizer temperature falls below 650 degrees F:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all days during which any visible particulate emissions were observed from the thermal oxidizer stack serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

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:
Particulate emissions shall not exceed 0.6 lb/hr.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the following conveying rates by an assumed baghouse control efficiency of 99.9% and totaling the results:

Monomer East Stack-
(22 pounds per hour conveying rate)(1-0.999) = 0.022 lb/hour

Monomer West Stack-
(22 pounds per hour conveying rate)(1-0.999) = 0.022 lb/hour

First Floor Monomer Conveying Room H&V -
(44 pounds per hour conveying rate)(0.10 dust factor)(1-0.999) = 0.004 lb/hour

Third Floor Restricted Room H&V -
(44 pounds per hour conveying rate)(0.25 dust factor)(1-0.999) = 0.011 lb/hour

Graphite Weigh-Out Emissions - (fugitive uncontrolled)
(6.0 pounds per hour conveying rate)(0.015 dust factor) = 0.09 lb/hour

Fitzmill Exhaust, East (fugitive uncontrolled)
(22.9 pounds per hour conveying rate)(0.007 dust factor) = 0.16 lb/hour

Fitzmill Exhaust, West (fugitive uncontrolled)
(22.9 pounds per hour conveying rate)(0.007 dust factor) = 0.16 lb/hour

Total = 0.469 lb/hour

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.b Emission Limitation:
Particulate emissions shall not exceed 2.6 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short-term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.c Emission Limitation:
The particulate emissions shall be reduced by at least 99.5%.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

V. Testing Requirements (continued)

- 1.d** Emission Limitations:
Organic compound emissions shall not exceed 4.7 lbs/hr.
The organic compound emissions shall be reduced by at least 85%.

Applicable Compliance Method:

Compliance with this emission limitation was demonstrated by an emission test on 8/14/91 with a scrubber as the control device. A thermal oxidizer is now being used with an overall control of at least 95%.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

- 1.e** Emission Limitation:
No visible particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin production facility, line 1 with thermal oxidizer downstream of a baghouse	none	none

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: CRL: KAPTON SEMI-WORKS (P020)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
CRL: Kapton Semi-works with thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 01-1150)	Organic compound emissions shall not exceed 80 lbs/day and 14.6 tons/yr.
	OAC rule 3745-21-07(G)(1)	Organic compound emissions shall be controlled through the use of a thermal oxidizer with a minimum 85% overall control efficiency for the oven emissions and a 95% destruction efficiency. The control efficiency limitation specified by this rule is less stringent than the control efficiency limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1200 degrees F.

III. Monitoring and/or Record Keeping Requirements

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

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

- a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was less than 1200 degrees F; and
- b. a log 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. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the thermal oxidizer exhaust gas temperature falls below 1200 degrees F:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

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:
Organic compound emissions shall not exceed 80 lbs/day.

Applicable Compliance Method:

Compliance with the daily limitation shall be demonstrated based on the following calculation using the potential to emit OC (obtained from material balance calculations supplied by Dupont) and an estimated 95% control efficiency for the thermal oxidizer:

$$(61.7 \text{ lbs OC/hr})(1-0.95)(24 \text{ hrs/day}) = 74.1 \text{ lbs OC/day.}$$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 to determine the hourly OC emission rate and the hourly OC emission rate shall be multiplied by 24 hrs/day.

V. Testing Requirements (continued)

- 1.b** Emission Limitation:
Organic compound emissions shall not exceed 14.6 tons/yr.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the daily limitation is maintained. The annual limitation was calculated by multiplying the daily limitation by 365 days/year, divided by 2000 pounds/ton.

- 1.c** Emission Limitation:
Organic compound emissions shall be controlled through the use of a thermal oxidizer with a minimum 85% overall control efficiency for the oven emissions and a 95% destruction efficiency.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. the emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration;
- ii. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds;
- iii. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rate for organic compounds: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and
- iv. the test shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
CRL: Kapton Semi-works with thermal oxidizer	none	none

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: KAPTON SOLV. RECOVERY, UNIT NO. 1 (P024)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recovery columns, unit no. 1 with wet scrubber	OAC rule 3745-31-05(A)(3) (PTI 01-1663)	The requirements established pursuant to this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).
	OAC rule 3745-21-07(G)(2)	Organic compound emissions shall not exceed 8 lbs/hr and 40 lbs/day.

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The scrubber water flow rate shall be maintained at a value of not less than 0.25 gallon per minute at all times while this emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate at all times while this emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information:

- the scrubber water flow rate, in gallons per minute, on a per shift basis; and
 - the downtime for the control device (wet scrubber) and monitoring equipment while this emissions unit is in operation.
- The permittee shall maintain daily records of the hours of operation of this emissions unit.

IV. Reporting Requirements

- The permittee shall submit quarterly deviation (excursion) reports that identify all times during which the scrubber water flow rate fell below the rate specified in section A.II.1. These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarter.

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:
Organic compound emissions shall not exceed 8 lbs/hr.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 3 months after issuance of the permit and within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for OC.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate for OC, Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Central District Office.
- v. The test shall include monitoring and recording of the scrubber water flow rate during the emission test(s).

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

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

1.b Emission Limitation:
Organic compound emissions shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance with the daily limitation shall be based on the results of the emission testing in section A.V.1.a multiplied by the daily hours of operation recorded in section A.III.2.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recovery columns, unit no. 1 with wet scrubber	none	none

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: KAPTON REFRIGERATION SYSTEM (P027)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton refrigeration system	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.a below.)

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton refrigeration system	none	none

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: NORTH & SOUTH BIO-OXIDATION PONDS (P067)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
north and south bio-oxidation ponds	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.a below.)

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5), referring to total volume of liquid.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
north and south bio-oxidation ponds	none	none

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: SP RESIN FACILITY, LINE #3 (P076)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin manufacturing facility, line 3 with thermal oxidizer downstream of a baghouse	OAC rule 3745-31-05(A)(3) (PTI 01-5991)	Particulate emissions shall not exceed 0.020 gr/dscf, 1.6 lbs/hr and 7.2 tons/yr.
		Organic compound emissions shall not exceed 8.8 lbs/hr and 38.6 tons/yr.
		Use of a thermal oxidizer with a minimum 95% control efficiency
		No visible particulate emissions exempt (See section A.I.2.a below.)
	OAC rule 3745-21-07(G)(2)	The particulate emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	
	OAC rule 3745-17-07(A)	The visible particulate emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

II. Operational Restrictions

1. A combustion temperature of not less than 650 degrees F shall be maintained for the gases within the thermal oxidizer.
2. The permittee shall operate and maintain the baghouse according to the manufacturer's specifications to maximize capture efficiency and control capabilities. The baghouse shall be operated and enclosures shall be maintained under negative pressure whenever the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

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

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

- a. all times during which the exhaust gas temperature from the thermal oxidizer, when the emissions unit was in operation, was less than 650 degrees F; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall perform daily checks for visible emissions from the thermal oxidizer stack when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the thermal oxidizer stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
 3. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the thermal oxidizer temperature falls below 650 degrees F:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

IV. Reporting Requirements (continued)

2. The permittee shall submit quarterly deviation (excursion) reports that identify all days during which any visible particulate emissions were observed from the thermal oxidizer stack serving this emissions unit and describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.
3. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

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:
Particulate emissions shall not exceed 0.020 gr/dscf.

Applicable Compliance Method:

Compliance with this emission limitation may be based on the bag filter manufacturer's guaranteed emission rate of 0.020 grain/dscf (from PTI application dated 9/15/95).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.b Emission Limitation:
Particulate emissions shall not exceed 1.6 lbs/hr.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying 0.020 gr/dscf by the maximum exit gas volume of 8950 ACFM:

$$(0.02 \text{ gr/cf})(8950 \text{ cfm})(60 \text{ min/hour}) / 7000 \text{ grains/pound} = 1.6 \text{ lbs PE/hour}$$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.c Emission Limitation:
Particulate emissions shall not exceed 7.2 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.d Emission Limitations:
Organic compound emissions shall not exceed 8.8 lbs/hr.
Use of a thermal oxidizer with a minimum 95% control efficiency

Applicable Compliance Method:

Compliance with these emission limitations are based on the results of an emission test for a similar emissions unit (P017) on 8/14/91. The short-term emission limitation reflects the use of a thermal oxidizer with an overall control of at least 95%.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

V. Testing Requirements (continued)

- 1.e** Emission Limitation:
Organic compound emissions shall not exceed 38.6 tons/yr.

Applicable Compliance Method:
Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained. The annual limitation was calculated by multiplying the hourly limitation by 8760 hours/year, divided by 2000 pounds/ton.

- 1.f** Emission Limitation:
No visible particulate emissions

Applicable Compliance Method:
If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin manufacturing facility, line 3 with thermal oxidizer downstream of a baghouse	none	none

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: SP RESIN WASTE WATER FACILITY (P079)

Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin wastewater treatment facility	OAC rule 3745-31-05(A)(3) (PTI 01-8043)	Organic compound emissions shall not exceed 3.96 lbs/hr and 17.4 tons/yr.
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.a below.)

2. Additional Terms and Conditions

- 2.a To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- 2.b The short-term emission limitation and annual emission limitation were established to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping and/or reporting requirements to ensure compliance with these emission limitations.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

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:

V. Testing Requirements (continued)

- 1.a** Emission Limitation:
Organic compound emissions shall not exceed 3.96 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be based on modeling of the worst case (i.e. the maximum potential organic emissions) scenario supplied in the PTI application received 8/17/99, using version 4.0 of the Environmental Protection Agency's Water8 emission estimation model.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

- 1.b** Emission Limitation:
Organic compound emissions shall not exceed 17.4 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short-term emission limitation by 8760 hours per year and dividing 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
SP Resin wastewater treatment facility	none	none

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: KAPTON FILM MANUFACTURING LINE 3 (P080)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton film manufacturing line 3 with oven, thermal oxidizer and casting film chopper conveying system with a baghouse	OAC rule 3745-31-05(A)(3) (PTI 01-08064)	Particulate emissions shall not exceed 0.030 grain/dscf, 2.06 lbs/hr and 9.01 tons/yr.
		No visible particulate emissions from the baghouse stack
		Organic compound emissions shall not exceed 2.03 lbs/hr and 7.4 tons/yr.
		Nitrogen oxides emissions shall not exceed 7.12 lbs/hr and 26.0 tons/yr.
		Carbon monoxide emissions shall not exceed 5.56 lbs/hr and 20.3 tons/yr.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
		See section A.1.2.a below.
	OAC rule 3745-21-07(G)(1)	The control efficiency limitation specified by this rule is less stringent than the control efficiency limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

OAC rule 3745-17-07(A)

Visible particulate emissions from the thermal oxidizer stack shall not exceed 20% opacity, as a 6-minute average except as provided by rule.

2. Additional Terms and Conditions

- 2.a** Total organic compound emissions shall be reduced by at least 95% overall, have a minimum 98% destruction efficiency through the use of a thermal oxidizer and a minimum 97% capture efficiency.

II. Operational Restrictions

1. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

III. Monitoring and/or Record Keeping Requirements

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

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

- a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
- b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall perform daily checks for visible emissions from the chemical processing area baghouse stack when the emissions unit is in operation, and when the weather conditions allow, for any visible particulate emissions (excluding uncombined water vapor) from the baghouse stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be recorded electronically or in an operations log. If visible particulate emissions are observed, the permittee shall also record the following:
- a. the color of the emissions;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the thermal oxidizer temperature falls below the temperature limitation specified above:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall submit quarterly written reports that identify all days during which any visible particulate emissions were observed from the chemical processing area baghouse stack and any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the data obtained during the previous calendar quarter.

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:
Particulate emissions shall not exceed 0.030 grain/dscf.

Applicable Compliance Method:

Compliance with this emission limitation may be based on the bag filter manufacturer's guaranteed emission rate of 0.030 grain/dscf (from PTI application dated 9/28/99).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.b Emission Limitation:
Particulate emissions shall not exceed 2.06 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation may be demonstrated by multiplying 0.030 grain/dscf by the baghouse's maximum flow rate of 8000 dscf per minute:

$$(0.030 \text{ gr/dscf})(8000 \text{ dscf/minute})(60 \text{ min/hr}) / (7000 \text{ gr/lb}) = 2.06 \text{ lb PE/hour}$$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

- 1.c Emission Limitation:
Particulate emissions shall not exceed 9.01 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

V. Testing Requirements (continued)

- 1.d** Emission Limitation:
Organic compound emissions shall not exceed 2.03 lbs/hr.

Applicable Compliance Method:

Compliance with the short term limitation may be demonstrated by summing the emissions from dimethylacetamide (DMAC), beta-picoline (B-Pic) and acetic acid and fugitive OC emissions below. Emission rates were derived from flow rates. The flow rates for DMAC and B-Pic are based on actual continuous emissions monitoring (CEM) data from Kapton lines 1 and 2, then scaled up to a higher flow rate. Acetic acid emissions are based on modeling studies. Fugitive OC emissions were based on OSHA studies of employee exposure.

Emissions from DMAC and B-Pic:

Based on thermal oxidizer manufacturer's guarantee of at least 98% destruction efficiency.
 $(16.62 \text{ lb DMAC/hr} + 11.7 \text{ lb B-Pic/hr})(1-0.98 \text{ control}) = 0.57 \text{ lb OC/hr}$

Emissions from acetic acid:

$(0.20 \text{ lb acetic acid/hr})(1-0.98 \text{ control}) = 0.004 \text{ lb OC/hr}$

Emission from fugitive OC emissions:

Data was estimated from OSHA employee exposure readings.

$(0.26 \text{ ppm DMAC})(55,000 \text{ cfm})(60 \text{ min/hr})(1 \text{ lb-mole}/359 \text{ scf})(87 \text{ lb/lb mole}) = 0.21 \text{ lb OC/hr}$

$(0.05 \text{ ppm B-Pic})(55,000 \text{ cfm})(60 \text{ min/hr})(1 \text{ lb-mole}/359 \text{ scf})(93 \text{ lb/lb mole}) = 0.04 \text{ lb OC/hr}$

$(1.06 \text{ ppm acetic acid})(55,000 \text{ cfm})(60 \text{ min/hr})(1 \text{ lb-mole}/359 \text{ scf})(60 \text{ lb/lb mole}) = 0.58 \text{ lb OC/hr}$

Total Emissions:

$0.57 \text{ lb} + 0.004 \text{ lb} + 0.21 \text{ lb} + 0.04 \text{ lb} + 0.58 \text{ lb} = 1.4 \text{ lbs OC/hour}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

- 1.e** Emission Limitation:
Organic compound emissions shall not exceed 7.4 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.f** Emission Limitations:
Total organic compound emissions shall be reduced by at least 95% overall, have a minimum 98% destruction efficiency through the use of a thermal oxidizer and a minimum 97% capture efficiency.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 and Method 204.

V. Testing Requirements (continued)

- 1.g** Emission Limitation:
Nitrogen oxides (NOx) emissions shall not exceed 7.12 lbs/hr.

Applicable Compliance Method:

Compliance with the short term limitation may be demonstrated by summing DMAC, B-Pic, and natural gas combustion emissions. Emissions derived by calculating the stoichiometric formation of NOx and the maximum flow rates. The flow rates for DMAC and B-Pic are based on actual test data from a similar unit. NOx emissions from the combustion of natural gas are based on the emissions unit's maximum gas usage. The 30% conversion to NOx is based on a pilot test of a similar emissions unit using EPA Methods.

NOx emissions from DMAC:

$(16.62 \text{ lbs DMAC/hr})(16.1\% \text{ N})(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(30\% \text{ conversion to NO}_x) = 2.64 \text{ lbs NO}_x/\text{hr}$

emissions from B-Pic:

$(11.7 \text{ lb B-Pic/hr})(15.1\% \text{ N})(46 \text{ mole.wt.NO}_2/14 \text{ mole.wt.N})(30\% \text{ conversion to NO}_x) = 1.74 \text{ lbs NO}_x/\text{hr}$

emissions from natural gas:

Based on AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98)
 $(5600 \text{ cft/hr})(100 \text{ lbs}/10\text{EE}06\text{cft}) = 0.56 \text{ lb NO}_x/\text{hr}$

Total emissions from thermal oxidizer:

$2.64 \text{ lbs} + 1.74 \text{ lbs} + 0.56 \text{ lbs} = 4.94 \text{ lbs NO}_x/\text{hr}$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- 1.h** Emission Limitation:
Nitrogen oxides emissions shall not exceed 26.0 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.i** Emission Limitation:
Carbon monoxide emissions shall not exceed 5.56 lbs/hr.

Applicable Compliance Method:

Compliance with the short term limitation may be demonstrated as the sum of CO emissions from the combustion of natural gas and from process organics. CO emission factors for natural gas taken from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-1 (7/98).

$(5600 \text{ cft/hr})(84 \text{ lbs CO}/10\text{EE}06 \text{ cft}) = 0.47 \text{ lb CO/hr}$

CO emissions from process organics:

Process experience with other units indicates that CO concentrations in stack gasses range up to 150 ppm. Maximum stack exhaust gas flow rate is 5000 scfm.

$(5000 \text{ scfm exhaust gas})(0.00015 \text{ scft CO}/1\text{scft exhaust gas})(1 \text{ lb-mole}/359 \text{ scft})(28 \text{ lbs CO}/\text{lb mole})(60 \text{ min/hr}) = 3.5 \text{ lb CO/hr}$

Total CO emissions from natural gas and process organics:

$0.47 \text{ lb} + 3.5 \text{ lbs} = 3.97 \text{ lbs CO/hr}$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

V. Testing Requirements (continued)

- 1.j** Emission Limitation:
Carbon monoxide emissions shall not exceed 20.3 tons/yr.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the short term emission limitation by 8760 hours per year and dividing by 2000 pounds per ton.

- 1.k** Emission Limitation:
Visible particulate emissions from the thermal oxidizer stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

- 1.l** Emission Limitation:
No visible particulate emissions from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton film manufacturing line 3 with oven, thermal oxidizer and casting film chopper conveying system with a baghouse	none	none

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: KAPTON SOLV. RECOVERY, UNIT NO. 2 (P081)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle distillation columns unit 2 with packed scrubber	OAC rule 3745-31-05(A)(3) (PTI 01-08064) OAC rule 3745-21-07(G)(2)	Organic compound emissions shall not exceed 8 lbs/hr and 40 lbs/day. The emission limitations established pursuant to this rule are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

None

II. Operational Restrictions

- The scrubber water flow rate shall be maintained at a value of not less than 0.25 gallon per minute at all times while this emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

- The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate at all times while this emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information:

- the scrubber water flow rate, in gallons per minute, on a per shift basis; and
- the downtime for the control device and monitoring equipment while this emissions unit is in operation.

IV. Reporting Requirements

- The permittee shall submit quarterly deviation (excursion) reports that identify all times during which the scrubber water flow rate fell below the rate specified in section A.I.1. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii. of the General Terms and Conditions of this permit.

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:
Organic compound (OC) emissions shall not exceed 8 lbs/hr.

Applicable Compliance Method:

Compliance may be demonstrated by summing the estimated fugitive emissions (0.28 pound OC per hour) based on calculations established in PTI 01-08064 issued July 27, 2000, and the emission test results for emissions unit P024 conducted in December, 1991 (0.37 pound OC per hour.)

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 to determine the hourly OC emission rate and sum the the estimated fugitive emission rate (0.28 pound OC per hour) with the hourly emission rate from the emission test(s).

1.b Emission Limitation:
Organic compound emissions shall not exceed 40 lbs/day.

Applicable Compliance Method:

Compliance may be demonstrated by summing the estimated fugitive emissions (0.28 pound per hour) based on calculations established in PTI 01-08064 issued July 27, 2000, and the emission test results for emissions unit P024 conducted in December, 1991 (0.37 pound per hour) then multiplying by 24 hrs/day.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Kapton solvent recycle distillation columns unit 2 with packed scrubber		

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 (P081) was evaluated based on the actual 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): 188.4

Maximum Hourly Emission Rate (lbs/hr): 1.15

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 36

MAGLC (ug/m3): 4486

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, 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;

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

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.

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: MYLAR VCL2 AIR STRIPPER (P099)
Activity Description: CONFIDENTIAL

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Mylar VCL2 air stripper	OAC rule 3745-31-05(A)(3) (PTI 01-1102)	Vinylidene chloride emissions shall not exceed 22.4 lbs/day and 4.1 tons/yr.
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.b below.)

2. Additional Terms and Conditions

- 2.a The short term emission limitation and annual emission limitation were established to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping and/or reporting requirements to ensure compliance with these emission limitations.
- 2.b To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5), referring to total volume of liquid.

II. Operational Restrictions

1. Pumping of well water from well DB-2 or well DB-3 shall be stopped if the air stripper system malfunctions or is taken out of service, unless otherwise approved by the Ohio EPA.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material is employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

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:

V. Testing Requirements (continued)

- 1.a** Emission Limitations:
Vinylidene chloride emissions shall not exceed 22.4 lbs/day and 4.1 tons/yr.

Applicable Compliance Method:

Compliance with these emission limitations may be demonstrated by multiplying the maximum amount of vinylidene chloride (VCL2) released per billion pounds of water by the maximum pounds of water stripped per day

(2670 ppb/lb water before stripping - 5.34 ppb/lb water after stripping) (8,396,640 lb water/day) = 22.4 lbs/day

(22.4 lbs/day)(365 days/yr)/(ton/2000 lbs) = 4.1 tons/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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Mylar VCL2 air stripper	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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