



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

07/22/99

CERTIFIED MAIL

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

16-77-02-0009
PPG INDUSTRIES - BARBERTON PLANT
Irene K. Raiber
PPG Industries, Inc.
4829 Fairland Road
Barberton, OH 44203-0031

Dear Irene K. Raiber:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 02/18/99. The comment period has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written or with agreed-upon changes, then you have the opportunity to schedule a meeting with us to discuss your concerns.

Please contact Jim Orlemann, Engineering Section Manager, 614-644-3592, or you can telefax your request to (614) 644-3681, within fourteen (14) days from receipt of this letter if a meeting is desired. If a request for a meeting is not received within fourteen (14) days of receipt of this letter, we will forward this proposed permit (as written, or with agreed-upon changes) to USEPA for approval.

Very truly yours,

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

cc: Akron Air Pollution Control
Becky Castle, DAPC PMU



Ohio EPA

State of Ohio Environmental Protection Agency

TITLE V PERMIT

Date: 07/22/99

PRELIMINARY PROPOSED

Effective Date:

Expiration Date:

This document constitutes issuance to:

PPG INDUSTRIES - BARBERTON PLANT
PPG Industries, Inc.
4829 Fairland Road
Barberton, OH 44203-0031

of a Title V permit for Facility ID: 16-77-02-0009

Emissions Unit ID (Company ID)/

Emissions Unit Activity Description:

P108 (Teslin Line 1)

Line 1; Mixer, Extruder, Extractor, Drying Oven; Teslin

P110 (Teslin Line 2)

Line 2; Mixer, Blender, Extruder, Extractor, Drying Oven; Teslin

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

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

Akron Air Pollution Control
146 South High Street, Room 904
Akron, OH 44308
(330) 375-2480

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones

Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
 - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month

period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Marketable Permit Programs

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

9. Reasonably Anticipated Operating Scenarios

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

10. Reopening for Cause

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

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

11. Federal and State Enforceability

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

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:
 - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

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

14. Operational Flexibility

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

15. Emergencies

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

16. Off Permit Changes

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

17. Compliance Method Requirements

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

B. State Only Enforceable Section

1. Permit to Install Requirement

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

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

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

None

B. State Only Enforceable Section

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

B019 - no. 1 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
B020 - no. 2 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
B021 - no. 3 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
B022 - no. 4 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
B023 - no. 5 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
B024 - no. 6 Teslin boiler, 6.28 mmBtu/hr, natural gas-fired
P111 - bulk unloading & storage, three silos, pneumatic conveying system
T044 - oil tank, 8,000 gallons
T045 - oil tank, 2,000 gallons
Z049 - T391 - polyolefin silo, PPG no. 38193
Z048 - T392 - polyolefin silo, PPG no. 38914
Z050 - T393 - silica silo
Z051 - T420 - ethylene glycol coolant tank

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: Teslin Line 1 (P108)

Activity Description: Line 1; Mixer, Extruder, Extractor, Drying Oven; Teslin

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>
Teslin line #1 - mixer, blender, extruder, extractor, drying oven controlled with a baghouse, smog hog, and a carbon adsorber	OAC rule 3745-17-07	20% opacity as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11	3.53 lbs/hr of particulate emissions at stack P108-S01 See A.2.b below.
	OAC rule 3745-21-07(G)(2)	85% reduction of organic compounds (OC) (combined stack and fugitive emissions)

2. Additional Terms and Conditions

- 2.a Maximum process weight rate for this emissions unit was developed based upon the current product mix. If heavier dry materials are handled in this emissions unit, the particulate emissions rate shall be adjusted in accordance with Table I or Figure II of OAC rule 3745-17-11, and the permittee shall notify the Akron RAQMD and shall submit an application if a permit modification is required.
- 2.b Total allowable particulate emissions from P108-S01 are for material handling operations serving both Teslin lines, P108 and P110, and reflect the combined level of allowable emissions authorized in PTI numbers 16-1776 and 16-1798.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6 inches of water while the emissions unit is in operation.
2. Operation of the baghouse outside of the specified pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.
3. The total mass steam flow rate from the carbon adsorber, for any carbon bed regeneration cycle, shall not be more than 10 percent below the minimum total mass steam flow rate for any regeneration cycle during the most recent emission test that demonstrated the emissions unit was in compliance.
4. Operation of the carbon adsorber outside of the specified total mass steam flow rate for any carbon bed regeneration cycle is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), and any modifications deemed necessary by the permittee. The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall operate and maintain a continuous monitor and recorder which measures and records the steam flow rate from the carbon adsorber serving P108. The monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, and any modifications deemed necessary by the permittee.
3. The permittee shall collect and record the following information for the equipment used to control organic compound emissions each operating day:
 - a. the total mass steam flow rate from the carbon adsorber during each carbon bed regeneration cycle; and
 - b. a log or record of the downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit(s).
4. The permittee shall calculate and record, on a daily basis, the fugitive emissions, stack emissions, and overall control efficiency for organic compounds (combined stack and fugitive emissions) for this emissions unit. Fugitive emissions, stack emissions, and overall control efficiency shall be calculated based upon the methodology specified in section A.V.5.c.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify any day during which the pressure drop across the baghouse was less than 0.5 inch or more than 6 inches of water while the emissions unit was in operation.
2. The permittee shall submit total mass steam flow rate deviation (excursion) reports that identify all carbon bed regeneration cycles during which the total mass flow steam rates were more than 10 percent below the minimum total mass steam flow rate for any regeneration cycle during the most recent emissions test that demonstrated the emissions unit was in compliance.
3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the organic compound emissions were not reduced by at least 85%, and the actual reduction amount for each such day, as calculated based upon the methodology specified in section A.V.5.c.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after issuance of the permit and, if required, approximately 2.5 years after permit issuance and, if required, within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
 - c. The following test method(s) shall be employed to demonstrate compliance:

for particulates, Method 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.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

- 2.** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- 3.** Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- 4.** A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- 5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 5.a** Emission Limitation:

20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method:

If required, OAC rule 3745-17-03(B)(1)
 - 5.b** Emission Limitation:

3.53 lbs/hr of particulate emissions at stack P108-S01

Applicable Compliance Method:

Compliance shall be demonstrated through emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.
 - 5.c** Emission Limitation:

85% overall reduction of organic compounds (OC) (combined stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the 85% reduction for OC shall be determined by the record keeping requirements specified in section A.III.4.

V. Testing Requirements (continued)

Fugitive emissions, stack emissions, and overall control efficiency shall be calculated daily in accordance with the following methodology:

Input Parameters:

D = density of TCE makeup pumped into day tank (lbs/gal) [handbook value]

M = virgin TCE makeup pumped into day tank (gallons) [tallied each time material is transferred]

W = waste TCE removed from process (lbs) [recorded on waste manifest for each drum of material removed]

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

P1 = total daily production rate for line 1 (P108) (lbs/day)

P2 = total daily production rate for line 2 (P110) (lbs/day)

R = TCE recovered from the carbon adsorber, in lbs/day

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$E_{ads} = H \times Rads$

2. Perform daily calculation of TCE added to system (total emissions): (lbs)

$E_{tot} = MD - W$

3. Calculate total air emissions as a rolling, 30-day summation: (lbs)

$E_{tot30} = \text{Summation}_{30}(E_{tot})$ (for day plus previous 29 days)

4. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$E_{ads30} = \text{Summation}_{30} E_{ads}$ (for day plus previous 29 days)

5. Calculate fugitive emissions as a rolling, 30-day summation: (lbs)

$E_{fug30} = E_{tot30} - E_{ads30}$

6. Calculate daily average fugitive emissions: (lbs)

$E_{fug\ daily} = E_{fug30} / 30$

7. Calculate daily average fugitive emissions from Line 1: (lbs)

$E_{fug\ daily\ l1} = (E_{fug\ daily} \times P1) / (P1 + P2)$

8. Calculate daily average fugitive emissions from Line 2: (lbs)

$E_{fug\ daily\ l2} = (E_{fug\ daily} \times P2) / (P2 + P1)$

V. Testing Requirements (continued)

9. Calculate TCE recovered from the carbon adsorber as a rolling, 30-day summation: (lbs)

$R_{30} = \text{Summation}_{30}(R)$ (for day plus previous 29 days)

10. Calculate daily average amount of TCE recovered from the carbon adsorber: (lbs)

$R_{\text{avg daily}} = R_{30} / 30$

11. Overall removal efficiency (%) shall be calculated daily in accordance with the following methodology and compared to the allowable value of 85%:

$\text{Overall removal efficiency} = [R_{\text{avg}} / (R_{\text{avg}} + E_{\text{tot}})] * 100\%$

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>
Teslin line #1 - mixer, blender, extruder, extractor, drying oven controlled with a baghouse, a smog hog, and a carbon adsorber	OAC rule 3745-31-05 (PTI 16-1798)	5% opacity as a 6-minute average 90% reduction of organic compounds (OC) (combined stack and fugitive emissions) total allowable vent emissions from P110-S01 shall not exceed 1.1 lbs/hr of OC or 5.0 tpy of OC fugitive OC emissions from emissions unit P108 are limited to 33.55 tpy 15.5 tpy of particulate emissions at stack P108-S01 See B.I.2 below.

2. Additional Terms and Conditions

- 2.a The mixer shall be adequately enclosed and shall vent to a baghouse.
- 2.b The calender rollers and extruder shall be equipped with a Smog Hog or equivalent device to control particulate emissions generated from plastic sheet formation.
- 2.c The extruder, oil separator, drying oven, and TCE stripping unit shall be vented to a carbon adsorption unit to control organic emissions.
- 2.d Total allowable vent emissions from P110-S01 represent combined vent emissions from P108 and P110.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall calculate and record, on an annual basis, the fugitive emissions of OC from the emissions unit. Fugitive emissions shall be calculated using the methodology specified in section A.V.5.c.
2. The permittee shall calculate and record, on an annual basis, the mass emissions of particulates from P108 and P110.

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

3. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. 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

1. The permittee shall submit annual reports that specify the total vent emissions of OC. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.
2. The permittee shall submit annual reports that specify the total fugitive emissions of OC from this emissions unit. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.
3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the organic compound emissions were not reduced by at least 90%, and the actual reduction amount for each such day.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition B.2 of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after issuance of the permit, approximately 2.5 years after permit issuance, and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable overall control efficiency and mass emission rate for organic compounds.
 - c. The following test method(s) shall be employed to demonstrate compliance:

for organic compounds, Method 18 of 40 CFR Part 60, Appendix A and Part III, section (B)(V)(1)(e)

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. For organic compounds, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

V. Testing Requirements (continued)

- 3.** Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- 4.** A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- 5.** Compliance with the emission limitations in section B.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 5.a** Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, OAC rule 3745-17-03(B)(1)
 - 5.b** Emission Limitation:

90% overall reduction of organic compounds (OC) (combined stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the 90% reduction for OC shall be determined by the record keeping requirements specified in A.III.4 and by stack testing in accordance with section B.V.1.

V. Testing Requirements (continued)

5.c Emission Limitation:

1.1 lbs/hr of OC
5.0 tpy of OC

Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for OC shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 18 and the procedures in OAC rule 3745-21-10(C).

Annual emissions shall be calculated in accordance with the following methodology:

Input Parameters:

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$Eads = H \times Rads$

2. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$Eads30 = \text{Summation}_{30} Eads$ (for day plus previous 29 days)

3. Calculate year-to-date vent emissions from the combined operation of Line 1 and Line 2: (tons)

$Eads\ ytd = [\text{SUMMATION}_{ytd}(Eads)] / 2000$

5.d Emission Limitation:

15.5 tpy of particulate emissions at stack P108-S01

Applicable Compliance Method:

Annual emissions shall be calculated by multiplying the results of the most recent stack test by the number of hours the emissions unit was in operation and converting the result to tons per year.

5.e Emission Limitation:

33.55 tpy OC as fugitive emissions from P108

Applicable Compliance Method:

Compliance shall be demonstrated by a material balance calculation to determine fugitive losses. The methodology to determine fugitive losses is stated below:

V. Testing Requirements (continued)

Input Parameters:

D = density of TCE makeup pumped into day tank (lbs/gal) [handbook value]

M = virgin TCE makeup pumped into day tank (gallons) [tallied each time material is transferred]

W = waste TCE removed from process (lbs) [recorded on waste manifest for each drum of material removed]

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

P1 = total daily production rate for line 1 (P108) (lbs/day)

P2 = total daily production rate for line 2 (P110) (lbs/day)

R = TCE recovered from the carbon adsorber, in lbs/day

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$E_{ads} = H \times R_{ads}$

2. Perform daily calculation of TCE added to system (total emissions): (lbs)

$E_{tot} = MD - W$

3. Calculate total air emissions as a rolling, 30-day summation: (lbs)

$E_{tot30} = \text{Summation}_{30}(E_{tot})$ (for day plus previous 29 days)

4. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$E_{ads30} = \text{Summation}_{30} E_{ads}$ (for day plus previous 29 days)

5. Calculate fugitive emissions as a rolling, 30-day summation: (lbs)

$E_{fug30} = E_{tot30} - E_{ads30}$

6. Calculate daily average fugitive emissions: (lbs)

$E_{fug\ daily} = E_{fug30} / 30$

7. Calculate daily average fugitive emissions from Line 1: (lbs)

$E_{fug\ daily\ l1} = (E_{fug\ daily} \times P1) / (P1 + P2)$

8. Calculate year-to-date fugitive emissions from Line 1: (tons)

$E_{fug\ ytd\ l1} = [\text{SUMMATION}_{ytd}(E_{fug\ daily\ l1})] / 2000$

VI. Miscellaneous Requirements

1. This permit allows the use of the wash solvent specified by the permittee in the PTI 16-1798 for this emissions unit. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the organic compound emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the wash solvent formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the SCREEN 3.0 model and a comparison of the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: trichloroethylene

TLV (mg/m³): 269

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 147.5

MAGLC (ug/m³): 6,404

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Teslin Line 2 (P110)

Activity Description: Line 2; Mixer, Blender, Extruder, Extractor, Drying Oven; Teslin

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>
Teslin line #2 - mixer, blender, extruder, extractor, drying oven controlled with a baghouse, a smog hog, and a carbon adsorber	OAC rule 3745-17-07	20% opacity as a 6-minute average, except as provided by rule
	OAC rule 3745-17-11	2.49 lbs/hr of particulate emissions (based on 950 lbs/hr maximum solid process weight)
	OAC rule 3745-21-07(G)(2)	85% reduction of organic compounds (OC) (combined stack and fugitive emissions)

2. Additional Terms and Conditions

- Maximum process weight rate for this emissions unit was developed based upon the current product mix. If heavier dry materials are handled in this emissions unit, the particulate emissions rate shall be adjusted in accordance with Table I or Figure II of OAC rule 3745-17-11, and the permittee shall notify the Akron RAQMD and shall submit an application if a permit modification is required.

II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6 inches of water while the emissions unit is in operation.
- Operation of the baghouse outside of the specified pressure drop range is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.
- The total mass steam flow rate from the carbon adsorber, for any carbon bed regeneration cycle, shall not be more than 10 percent below the minimum total mass steam flow rate for any regeneration cycle during the most recent emission test that demonstrated the emissions unit was in compliance.
- Operation of the carbon adsorber outside of the specified total mass steam flow rate for any carbon bed regeneration cycle is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or further investigation to establish correct operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), and any modifications deemed necessary by the permittee. The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall operate and maintain a continuous monitor and recorder which measures and records the steam flow rate from the carbon adsorber serving P110. The monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals, and any modifications deemed necessary by the permittee.
3. The permittee shall collect and record the following information for the equipment used to control organic compound emissions each operating day:
 - a. the total mass steam flow rate from the carbon adsorber during each carbon bed regeneration cycle; and
 - b. a log or record of downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit(s).
4. The permittee shall calculate and record, on a daily basis, the fugitive emissions, stack emissions, and overall control efficiency for organic compounds (combined stack and fugitive emissions) for this emissions unit. Fugitive emissions, stack emissions, and overall control efficiency shall be calculated based upon the methodology specified in section A.V.5.c.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify any day during which the pressure drop across the baghouse was less than 0.5 inch or more than 6 inches of water while the emissions unit was in operation.
2. The permittee shall submit total mass steam flow rate deviation (excursion) reports that identify all carbon bed regeneration cycles during which the total mass flow steam rates were more than 10 percent below the minimum total mass steam flow rate for any regeneration cycle during the most recent emissions test that demonstrated the emissions unit was in compliance.
3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the organic compound emissions were not reduced by at least 85%, and the actual reduction amount for each such day, as calculated based upon the methodology specified in section A.V.5.c.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after issuance of the permit and, if required, approximately 2.5 years after permit issuance and, if required, within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
 - c. The following test method(s) shall be employed to demonstrate compliance:

for particulates, Method 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.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

V. Testing Requirements (continued)

- 2.** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- 3.** Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- 4.** A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- 5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 5.a** Emission Limitation:

20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method:

If required, OAC rule 3745-17-03(B)(1)
 - 5.b** Emission Limitation:

2.49 lbs/hr of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated through emissions testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.
 - 5.c** Emission Limitation:

85% overall reduction of organic compounds (OC) (combined stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the 85% reduction for OC shall be determined by the record keeping requirements specified in section A.III.4.

V. Testing Requirements (continued)

Fugitive emissions, stack emissions, and overall control efficiency shall be calculated daily in accordance with the following methodology:

Input Parameters:

D = density of TCE makeup pumped into day tank (lbs/gal) [handbook value]

M = virgin TCE makeup pumped into day tank (gallons) [tallied each time material is transferred]

W = waste TCE removed from process (lbs) [recorded on waste manifest for each drum of material removed]

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

P1 = total daily production rate for line 1 (P108) (lbs/day)

P2 = total daily production rate for line 2 (P110) (lbs/day)

R = TCE recovered from the carbon adsorber, in lbs/day

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$E_{ads} = H \times R_{ads}$

2. Perform daily calculation of TCE added to system (total emissions): (lbs)

$E_{tot} = MD - W$

3. Calculate total air emissions as a rolling, 30-day summation: (lbs)

$E_{tot30} = \text{Summation}_{30}(E_{tot})$ (for day plus previous 29 days)

4. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$E_{ads30} = \text{Summation}_{30} E_{ads}$ (for day plus previous 29 days)

5. Calculate fugitive emissions as a rolling, 30-day summation: (lbs)

$E_{fug30} = E_{tot30} - E_{ads30}$

6. Calculate daily average fugitive emissions: (lbs)

$E_{fug\ daily} = E_{fug30} / 30$

7. Calculate daily average fugitive emissions from Line 1: (lbs)

$E_{fug\ daily\ l1} = (E_{fug\ daily} \times P1) / (P1 + P2)$

8. Calculate daily average fugitive emissions from Line 2: (lbs)

$E_{fug\ daily\ l2} = (E_{fug\ daily} \times P2) / (P2 + P1)$

V. Testing Requirements (continued)

9. Calculate TCE recovered from the carbon adsorber as a rolling, 30-day summation: (lbs)

$R_{30} = \text{Summation}_{30}(R)$ (for day plus previous 29 days)

10. Calculate daily average amount of TCE recovered from the carbon adsorber: (lbs)

$R_{\text{avg daily}} = R_{30} / 30$

11. Overall removal efficiency (%) shall be calculated daily in accordance with the following methodology and compared to the allowable value of 85%:

$\text{Overall removal efficiency} = [R_{\text{avg}} / (R_{\text{avg}} + E_{\text{tot}})] * 100\%$

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>
Teslin line #2 - mixer, blender, extruder, extractor, drying oven controlled with a baghouse, a smog hog, and a carbon adsorber	OAC rule 3745-31-05 (PTI 16-1776)	5% opacity as a 6-minute average 0.8 lb/hr of organic compounds (OC) and 3.5 TPY of OC (vent emissions from P110 - S01 stack) 90% reduction of organic compounds (OC) (combined stack and fugitive emissions) fugitive OC emissions are limited to 191 lbs/day and 33.8 tpy 10.9 tpy of particulate emissions See B.I.2 below.

2. Additional Terms and Conditions

- 2.a The mixer shall be adequately enclosed and shall vent to a baghouse.
- 2.b The calender rollers and extruder shall be equipped with a Smog Hog or equivalent device to control particulate emissions generated from plastic sheet formation.
- 2.c The extruder, oil separator, drying oven, and TCE stripping unit shall be vented to a carbon adsorption unit to control organic emissions.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall calculate and record, on an annual basis, the fugitive emissions of OC from the emissions unit. Fugitive emissions shall be calculated using the methodology specified in section A.V.5.c.
2. The permittee shall calculate and record, on an annual basis, the mass emissions of particulates from P108 and P110.
3. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. 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

1. The permittee shall submit annual reports that specify the total vent emissions of OC. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.
2. The permittee shall submit annual reports that specify the total fugitive emissions of OC from this emissions unit. These reports shall include the emission calculations, shall be submitted by April 30, and shall contain information for the previous calendar year.
3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the organic compound emissions were not reduced by at least 90%, and the actual reduction amount for each such day.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition B.2 of this permit.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after issuance of the permit, approximately 2.5 years after permit issuance, and within 6 months prior to permit renewal.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable overall control efficiency and mass emission rate for organic compounds.
 - c. The following test method(s) shall be employed to demonstrate compliance:

for organic compounds, Method 18 of 40 CFR Part 60, Appendix A and Part III, section (B)(V)(1)(e)

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. For organic compounds, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
4. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
5. Compliance with the emission limitations in section B.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

5.a Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, OAC rule 3745-17-03(B)(1)

5.b Emission Limitation:

90% overall reduction of organic compounds (OC) (combined stack and fugitive emissions)

Applicable Compliance Method:

Compliance with the 90% reduction for OC shall be determined by the record keeping requirements specified in A.III.4 and by stack testing in accordance with section B.V.1.

5.c Emission Limitation:

0.8 lb/hr of OC (vent emissions from P110-S01 stack)

3.5 tpy of OC (vent emissions from P110-S01 stack)

Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for OC shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 18 and the procedures in OAC rule 3745-21-10(C).

Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for OC shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 18 and the procedures in OAC rule 3745-21-10(C).

Annual emissions shall be calculated in accordance with the following methodology:

Input Parameters:

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$E_{ads} = H \times Rads$

2. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$E_{ads30} = \text{Summation}_{30} E_{ads}$ (for day plus previous 29 days)

3. Calculate year-to-date vent emissions from the combined operation of Line 1 and Line 2: (tons)

$E_{ads\ ytd} = [\text{SUMMATION}_{ytd}(E_{ads})] / 2000$

V. Testing Requirements (continued)

5.d Emission Limitation:

10.9 tpy of particulate emissions

Applicable Compliance Method:

Annual emissions shall be calculated by multiplying the results of the most recent stack test by the number of hours the emissions unit was in operation and converting the result to tons per year.

5.e Emission Limitation:

191 lbs/day fugitive emissions from P110
33.8 tpy fugitive emissions from P110

Applicable Compliance Method:

Compliance shall be demonstrated by a material balance calculation to determine fugitive losses. The methodology to determine fugitive losses is stated below:

Input Parameters:

D = density of TCE makeup pumped into day tank (lbs/gal) [handbook value]

M = virgin TCE makeup pumped into day tank (gallons) [tallied each time material is transferred]

W = waste TCE removed from process (lbs) [recorded on waste manifest for each drum of material removed]

Rads = TCE emission rate from carbon adsorber (lbs/hr) [the TCE emission rate measured during the most recent source test]

H = time of Teslin production operation on the line that is in operation for the longer period of time (i.e., record the hours of operation for each line, and H = the higher of the two lines) (hrs) [production records]

P1 = total daily production rate for line 1 (P108) (lbs/day)

P2 = total daily production rate for line 2 (P110) (lbs/day)

R = TCE recovered from the carbon adsorber, in lbs/day

1. Calculate daily point source emissions from the combined operation of Line 1 and Line 2: (lbs)

$E_{ads} = H \times Rads$

2. Perform daily calculation of TCE added to system (total emissions): (lbs)

$E_{tot} = MD - W$

3. Calculate total air emissions as a rolling, 30-day summation: (lbs)

$E_{tot30} = \text{Summation}_{30}(E_{tot})$ (for day plus previous 29 days)

4. Calculate point source emissions as a rolling, 30-day summation: (lbs)

$E_{ads30} = \text{Summation}_{30} E_{ads}$ (for day plus previous 29 days)

V. Testing Requirements (continued)

5. Calculate fugitive emissions as a rolling, 30-day summation: (lbs)

$$E_{fug30} = E_{tot30} - E_{ads30}$$

6. Calculate daily average fugitive emissions: (lbs)

$$E_{fug\ daily} = E_{fug30} / 30$$

7. Calculate daily average fugitive emissions from Line 1: (lbs)

$$E_{fug\ daily\ I1} = (E_{fug\ daily} * P1) / (P1 + P2)$$

8. Calculate year-to-date fugitive emissions from Line 1: (tons)

$$E_{fug\ ytd\ I1} = [SUMMATION_{ytd}(E_{fug\ daily\ I1})] / 2000$$

VI. Miscellaneous Requirements

1. This permit allows the use of the wash solvent specified by the permittee in the PTI 16-1776 for this emissions unit. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the organic compound emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the wash solvent formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the SCREEN 3.0 model and a comparison of the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: trichloroethylene

TLV (mg/m³): 269

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 147.5

MAGLC (ug/m³): 6,404

VI. Miscellaneous Requirements (continued)

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

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