Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

5/2/2012

Certified Mail

Facility ID: 1677020164
Permit Number: P0106487
County: Summit

Mr. Gregory Stallings
PPG - Teslin
4829 Fairland Road
Barberton, OH 44203

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this Title V permit is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Akron Regional Air Quality Management District

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Title V Permit
for
PPG - Teslin

Facility ID:	1677020164
Permit Number:	P0106487
Permit Type:	Renewal
Issued:	5/2/2012
Effective:	5/23/2012
Expiration:	5/23/2017

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
PPG - Teslin

Table of Contents

Authorization 1
A. Standard Terms and Conditions 2
1. Federally Enforceable Standard Terms and Conditions 3
2. Monitoring and Related Record Keeping and Reporting Requirements 3
3. Scheduled Maintenance 6
4. Risk Management Plans 6
5. Title IV Provisions 7
6. Severability Clause 7
7. General Requirements 7
8. Fees 8
9. Marketable Permit Programs 8
10. Reasonably Anticipated Operating Scenarios 8
11. Reopening for Cause 9
12. Federal and State Enforceability 9
13. Compliance Requirements 9
14. Permit Shield 11
15. Operational Flexibility 11
16. Emergencies 11
17. Off-Permit Changes 11
18. Compliance Method Requirements 12
19. Insignificant Activities or Emissions Levels 12
20. Permit to Install Requirement 12
21. Air Pollution Nuisance 13
22. Permanent Shutdown of an Emissions Unit 13
23. Title VI Provisions 13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only 14
25. Records Retention Requirements Under State Law Only 14
26. Inspections and Information Requests 14
27. Scheduled Maintenance/Malfunction Reporting 15
28. Permit Transfers 15

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 15

B. Facility-Wide Terms and Conditions..... 16

C. Emissions Unit Terms and Conditions 19

1. P110, Teslin Line 2 20

2. Emissions Unit Group - Teslin Lines 3 & 4: P114, P115,..... 30

Authorization

Facility ID:	1677020164
Facility Description:	Chemical and Plastic Sheet Production
Application Number(s):	A0038618
Permit Number:	P0106487
Permit Description:	Title V Renewal permit for Chemical and Plastic Sheet Production facility.
Permit Type:	Renewal
Issue Date:	5/2/2012
Effective Date:	5/23/2012
Expiration Date:	5/23/2017
Superseded Permit Number:	P0103185

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

PPG - Teslin
PPG Industries, Inc.
4829 Fairland Road
Barberton, OH 44203-3913

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Akron Regional Air Quality Management District. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) 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:

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

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

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

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

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

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

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

See A.29 below if no deviations occurred during the quarter.

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

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

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

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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))

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Akron Regional Air Quality Management District.

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

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

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

4. Risk Management Plans

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

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

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

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

5. 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))

6. 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))

7. 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 Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

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

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; ora combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminent sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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))

9. 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))

10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.

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

11. 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))

12. 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))

13. 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:

(1) 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.

(2) 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.

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

(4) 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) 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:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) 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.

(3) 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))

14. 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))

15. 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))

16. 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))

17. Off-Permit Changes

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

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

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

18. 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.)

19. Insignificant Activities or Emissions Levels

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

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

20. 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))

21. 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))

22. Permanent Shutdown of an Emissions Unit

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

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

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

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

23. Title VI Provisions

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

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

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

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

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

24. Reporting Requirements Related to Monitoring and Record Keeping RequirementsUnder State Law Only

The permittee shall submit required reports in the following manner:

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

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

25. Records Retention RequirementsUnder State Law Only

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.

26. 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.

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

27. 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).

28. 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.

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

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

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

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. The emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.

   (Authority for terms: OAC rule 3745-25-04)

3. This facility is subject to the applicable requirements specified in 40 CFR Part 63, Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants for Site Remediation. Site remediation activities are not subject to the requirements of subpart GGGGG (except for certain record keeping requirements) provided the following conditions are met:

   (1) The total quantity of the HAP listed in Table 1 of this subpart that is contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediation conducted at the facility is less than 1 mega gram (Mg) annually. The 1 Mg limitation applies on a facility-wide basis, annual basis and there is no restriction to the number of site remediation that can be conducted at the facility under the exemption.

   (2) The permittee shall prepare and maintain written documentation to supports the determination that the total HAP quantity in the remediation materials for the year is less than 1 Mg. The documentation shall include a description of the methodology and data used for determining the total HAP content of the remediation material.

   Table 3 to Subpart GGGGG of 40 CFR Part 63 – Applicability of General Provisions to Subpart GGGGG shows which parts of the General Provisions in 40 CFR 63.1 – 15 apply.

   The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   (Authority for term: 40 CFR 63.7881(c), Subpart GGGGG)

4. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit to install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21 and/or 40 CFR Part 63:

   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 - bunk unloading and storage, three silos, pneumatic conveying system (Permit to install 160818);
   T044 - oil tank, 8,000-gallon (Permit to Install 16-01330); and

T045 - oil tank, 2,000-gallon (Permit to Install 16-01330); and
Z051 – cooling tank.

(Authority for term: OAC rule 3745-77-07(A)(13))

C. Emissions Unit Terms and Conditions

1. P110, Teslin Line 2

Operations, Property and/or Equipment Description:

Teslin Line 2;Synthetic Printing Sheet - Mixer, Blender, Extruder, Extractor, Drying Oven

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 16-01776, as effective 1/22/2002)	Organic compound (OC) emissions shall not exceed 0.8 pounds per hour, and 3.5 tons per year. (vent emissions from P110-S01 stack) 90% overall reduction of OC (combined stack and fugitive emissions) Fugitive OC emissions shall not exceed 191 pounds per day, and 33.8 tons per year. Visible particulate emissions (PE) shall not exceed 5% opacity, as a 6-minute average. PE shall not exceed 2.49 pounds per hour, and 10.9 tons per year.
b.	OAC rule 3745-17-07(A)	The visible emission limitation based on this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The emission limitation based on this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-07(M)(2)	The emission limitation based on this rule is less stringent than the emission

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. None

c) Operational Restrictions

(1) The mixer shall be adequately enclosed and shall vent all PE to a baghouseat all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(2) The calendar rollers and extruder shall be equipped with a Smog Hog or equivalent device to control PE generated from plastic sheet formationat all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(3) The extruder, oil separator, extractor, drying oven, and TCE stripping unit shall be vented to a carbon adsorption unit to control organic emissionsat all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 6.0 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit,the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(3) 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 f) below.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(4) The permittee shall calculate and record, on an annual basis, the fugitive and stack emissions of OC from the emissions unit. Fugitive emissions shall be calculated using the methodology specified in section f) below.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(5) The permittee shall calculate and record, on an annual basis, the mass emissions of particulates from this emissions unit.

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

(6) The permittee shall collect and record, for each operating day, a log or record of downtime for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.

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

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air services online web portal.

(Authority for term: OAC rule 3745-15-03(A))

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each period of time (start time and date, and end time and date)when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s),as identified in the monitoring and record keeping requirements of this permit.

f. Each day during which the OC emissions were not reduced by at least 90% (overall), and the actual reduction amount for each such day, as calculated based upon the methodology specified in section f)(1)b. below.

(Authority for term: OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1))

(3) The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

(4) The permittee shall submit annual reports that specify the total vent emissions of OC, total fugitive emissions of OC, and the total PE for this emissions unit for the previous calendar year. These reports shall include the emission calculations and shall be submitted by April 30 of each year.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

f) Testing Requirements

(1) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

OC emissions shall not exceed 0.8 pounds per hour, and 3.5 tons per year. (vent emissions from P110-S01 stack)

Applicable Compliance Method:

Compliance with the allowable hourly mass emission rate for OC shall be based on the results of emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18 and the applicable 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) [TCE emission rate measured during the most recent emission 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 three lines) (hrs) [production records]

i. Calculate daily point source emissions from the combined operations of Line 2, Line 3, and Line 4: (lbs)

Eads = H x Rads

ii. Calculate year-to-date stack emissions from Line 2: (tons)

Eads ytd L2 = [(summationYTD(Eads) / 3) / 2000

Also, as long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be demonstrated (the annual limitation was established based on multiplying the hourly limitation by 8760, and then dividing by 2000).

(Authority for terms: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

b. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the 90% reduction for OC shall be determined based upon the results of emission testing conducted in accordance with Methods 1 through 4, and 18 of 40 CFR Part 60 Appendix A as specified in section f)(2).

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 reach drum of material removed]

Rads = TCE emission rate from carbon adsorber (lbs/hr) [TCE emission rate measured during the most recent emission 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 three lines) (hrs) [production records]

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

i. Calculate daily point source emissions from the combined operations of Line 2, Line 3, and Line 4: (lbs)

Eads = H x Rads

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

Etot = MD - W

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

Etot30 = Summation30(Etot) (for the current day plus previous 29 days)

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

Eads30 = Summation30(Eads) (for the current day plus previous 29 days)

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

Efug30 = Etot30 - Eads30

vi. Calculate daily average fugitive emissions: (lbs)

Efug daily = Efug30 / 30

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

Efug daily L2 = Efug daily / 3

viii. Calculate daily average fugitive emissions from Line 3: (lbs)

Efug daily L3 = Efug daily / 3

ix. Calculate daily average fugitive emissions from Line 4: (lbs)

Efug daily L4 = Efug daily / 3

If either Line 2, Line 3, or Line 4 is not operating and does not contain TCE on a given operating day, no fugitive emissions shall be allocated to that line for that operating day.

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

R30 = Summation30(R) (for the current day plus previous 29 days)

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

Ravg daily = R30 / 30

xii. Overall removal efficiency (%) shall be calculated daily in accordance with the following methodology and compared to the allowable value of 90%:

Overall removal efficiency (%) = [Ravg daily / (Ravg daily + Etot30 / 30)] * 100%

(Authority for terms: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

c. Emission Limitations:

Fugitive OC emissions shall not exceed 191 pounds per day, and 33.8 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by a material balance calculation to determine fugitive losses 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 reach drum of material removed]

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

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

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

i. Calculate daily point source emissions from the combined operation of Line 2, Line 3, and Line 4: (lbs)

   Eads = H x Rads

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

   Etot = MD - W

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

   Etot30 = Summation30(Etot) (for the current day plus previous 29 days)

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

   Eads30 = Summation30(Eads) (for the current day plus previous 29 days)

v. Calculate fugitive emissions as a rolling 30-day summation (lbs)

   Efug30 = Etot30 - Eads30

vi. Calculate total daily average fugitive emissions: (lbs)

   Efug daily = Efug30 / 30

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

   Efug daily L2 = (Efug daily) / 3

If either Line 2, Line 3, or Line 4 is not operating and does not contain TCE on a given operating day, no fugitive emissions shall be allocated to that line for that operating day.

viii. Calculate year-to-date fugitive emissions from Line 2: (tons)

Efugytd L2 = [SummationYTD(Efug daily L2)] / 2000.

(Authority for terms: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

d. Emission Limitation:

Visible PE shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the VE limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-17-03(B)(1))

e. Emission Limitations:

PE shall not exceed 2.49 pounds per hour, and 10.9 tons per year.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly PE limitation by the results of testing in accordance with Methods 1 - 5, of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-17-03(B)(10))

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

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for OC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 thought 4, and 18 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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 3745-21-10 or an alternative test protocol approved by the Ohio EPA. 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.

d. If the emission testing is conducted simultaneously for all three emission units, P110, P114, and P115, emission testing for each individual line shall not be required.

e. 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.

f. 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).

g. 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.

h. 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.

(Authority for term: OAC rule 3745-21-10 and OAC rule 3745-15-04 and OAC rule 3745-77-07(C)(1))

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group -Teslin Lines 3 & 4: P114, P115,

EU ID	Operations, Property and/or Equipment Description
P114	Teslin Line 3; Synthetic Printing Sheet - Mixer, Blender, Extruder, Extractor, Drying Oven
P115	Teslin Line 4; Synthetic Printing Sheet - Mixer, Blender, Extruder, Extractor, Drying Oven

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 16-01955, as effective 01/29/02 for emissions unit P114) (PTI P0106569, as effective 07/26/10 for emissions unit P115)	Trichloroethylene/organic compound (TCE/OC) emissions shall not exceed 9.0 pounds per hour and 39.4 tons per year (combined stack and fugitive emissions). (emissions units P114 and P115) 90% reduction of TCE, as a 30-day rolling average, calculated on a daily basis (combined stack and fugitive emissions). (emissions units P114 and P115) 99% control efficiency of carbon adsorption unit, or 5 ppm outlet gas concentration. (emissions units P114 and P115) Primary process enclosures (mixers, extractor, dryer oven) (emissions units P114 and P115) See b)(2)e. - b)(2)g. below. Leak detection and repair program (LDAR) (the requirements of OAC rule 3745-21-09(DD)) (emissions unit P115) See b)(2)a. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Particulate Emissions (PE) shall not exceed 0.03 gr/dscf of exhaust gases from baghouse controlling dry material handling (stack P108-S01).(emissions unit P114) PE shall not exceed 0.5 pounds per hour, and 2.2 tons per year (combined emissions from stacks P108-S01 and P114-S02)(emissions unit P114) Visible PE from any stack shall not exceed 5% opacity as a 6-minute average, for stacks P108-S01 and P114-S02. (emissions unit P114)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI P0106569, as effective 07/26/10 for emissions unit P115)	PE shall not exceed 0.03 gr/dscf of exhaust gases from baghouse controlling dry material handling (stack P108-S01).(emissions unit P115) PE shall not exceed 0.5 pounds per hour, and 2.2 tons per year (combined emissions from stacks P108-S01 and P115-S02)(emissions unit P115) Visible PE from any stack shall not exceed 5% opacity as a 6-minute average.(emissions unit P115) See b)(2)h. below.
c.	OAC rule 3745-21-05(A)(3), as effective 12/01/06	See b)(2)l. below.
d.	OAC rule 3745-31-05(D)	9.9 tons particulate matter less than 10 micrometers (PM10) emissions per year (emissions unit P115) See b)(2)j. below.
e.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). (emissions unit P114) Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule.(emissions unit P115) See b)(2)k. below.
f.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). (emissions unit P114) PE shall not exceed 3.75 pounds per hour (based on Table 1 allowable)(emissions unit P115) See b)(2)k. below.
g.	OAC rule 3745-21-07(M)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-28 for TCE (all OC emitted is TCE).
h.	OAC Rule 3745-31-28 and 40 CFR Part 63 (Sections 112(g) and 112(j) of the Clean Air Act Amendments of 1990	90% reduction of TCE, as a 30-day rolling average, calculated on a daily basis (combined stack and fugitive emissions). (emissions units P114 and P115) 99% control efficiency of carbon adsorption unit, or 5 ppm outlet gas concentration. (emissions units P114 and P115) Primary process enclosures (mixers, extractor, dryer oven) (emissions units P114 and P115) See b)(2)e. - b)(2)g. below. Leak detection and repair program (LDAR) (the requirements of OAC rule 3745-21-09(DD)) See b)(2)a. below.
i.	40 CFR Part 64	See d)(21), d)(22), e)(2)g. and e)(4) below.

(2) Additional Terms and Conditions

a. The leak detection and repair program pertains to any type of pump, compressor, pressure relief device, sampling connection system, open-ended valve, flange, connector, closed vent system, and any other device or system in volatile organic compound (VOC) service within the Teslin Line #3 or Teslin Line #4 equipment and any equipment shared between Teslin Line #3 or Teslin Line #4 and any other Teslin line(s).

b. The extractor and dryer operating-zone lids shall be enclosed with a hood and vented to the carbon adsorption unit (CAU).

c. All doors and lids on the extractor, dryer, and oven shall be equipped with gaskets, water seals, or toggle clamps.

d. The entrance to the extractor and the exit from the dryer shall be adequately elevated above the unit to minimize fugitive emissions of TCE/OC.

e. The primary process enclosures, defined as the mixer, extractor, dryer, and oven shall be totally enclosed such that all TCE/OC emissions are captured, contained, and directed to the carbon adsorption unit.

f. The primary process enclosures shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The primary process enclosures shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each TCE/OC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4\ area/\pi)^{0.5}$$

ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H2O).

iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "b", shall be completely closed to any air movement during process operations.

v. All TCE/OC emissions shall be captured and contained for discharge through the control device.

g. The primary process enclosuresserving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure (PTE) in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

h. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plant (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

i. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

The "Best Available Technology (BAT)" requirements under OAC rule 3745-31-05(A)(3)(a) are not applicable to the particulate emissions (PE) emitted from this emissions unit (PE is emitted in the form of filterable PM10 emissions). BAT is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. Particulate emissions (also referred to as total suspended particulate or particulate matter) is an air contaminant without an established NAAQS.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the uncontrolled potential to emit for PM10 is less than 10 tons/year.

j. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Once US EPA approves the December 1, 2006 version of 3745-31-05, then the requirements established pursuant to OAC rule 3745-31-05(D) becomes effective.

k. The PE requirements established by this rule are less stringent than the requirements established under OAC rule 3745-31-05(A)(3)(a). On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by US EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the US EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once US EPA approves the December 1, 2006 version of 3745-31-05, then the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B) become effective.

c) Operational Restrictions

Control Requirements

(1) The mixer shall be adequately enclosed and shall vent all PE to a baghouseat all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(2) The calendar rollers and extruder shall be equipped with a Smog Hog or equivalent device to control PE generated from plastic sheet formation at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(3) The extruder, oil separator, extractor, drying oven, and TCE stripping unit shall be vented to a carbon adsorption unit to control organic emissions at all times the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

Primary Process Enclosure Requirements

(4) The primary process enclosures shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H2O), whenever the emissions unit is in operation.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1) and 40 CFR 51, Appendix M, Method 204)

LDAR Requirements

(5) When a leak is detected the following procedures shall be followed:

a. a weatherproof identification tag with the equipment identification number and the date shall beimmediately attached to the leaking equipment;

b. a record of the leak, the date it was first detected, and any attempt to repair the leak and date is entered into the leak repair log;

c. an identification tag that was attached to a leaking valve "in gas/vapor service" or "in light liquid service" may be removed only after the valve is repaired and found to have no leaks for two consecutive months; and

d. an identification tag attached to leaking equipment that is exempted from the monitoring requirementsof OAC 3745-21-09(DD)(2)(b)may be removed immediately following the repair of the leak.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(6) Repair of a leak shall be attempted no later than 5 calendar days after it is detected, where practicable, and shall include, but not limited to, the following best maintenance practices:

a. tightening of bonnet bolts;

b. replacement of bonnet bolts;

c. tightening of packing gland nuts; and

d. injection of lubricant into lubricated packing.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(7) Except where meeting one of the conditions defined in OAC 3745-21-09(DD)(11), where a delay in repair is allowed, a leak shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected. Leaking equipment shall be deemed repaired if the maximum VOC concentration is measured to be less than 10,000 ppmv.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(8) Each compressor shall be equipped with a seal that has a barrier fluid system and sensor which comply with the requirements specified in OAC 3745-21-09(DD)(8), with the following exceptions:

a. anycompressor designated for "no detectable emissions",and meeting the requirements of OAC 3745-21-09 (DD)(7).

b. any compressors equipped with a closed vent system capable of capturing and transporting any leakage from the compressor seal to control equipment, where the closed vent system and the control equipment comply with the requirements specified in OAC 3745-21-09(DD)(9) and (DD)(10).

c. any reciprocating compressor that meets the following conditions:

i. the compressor was installed prior to May 9, 1986; and

ii. thepermittee demonstrates, to the satisfaction of the Director, that recasting the compressor distance piece or replacing the compressor are the only options available to bring it into compliance with the requirements to equip it with a seal with a barrier fluid system and sensor.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(9) Except as otherwise provided below, any pressure relief device "in gas/vapor service" in the process unit shall comply with the following requirements:

a. Except during pressure releases, the pressure relief device shall be operated with "no detectable emissions", as indicated by an instrument reading of less than 500 ppmv above background, as measured by the method specified in OAC 3745-21-10(F).

b. No later than 5 calendar days after a pressure release,a pressure relief device shall be tested to confirm the condition of "no detectable emissions" in accordance with the method specified in OAC 3745-21-10(F).

c. Except for a delay of repair as provided in OAC 3745-21-09(DD)(11), a pressure relief device shall be returned to a condition of "no detectable emissions" as soon as practicable, but no later than 5 calendar days after a pressure release.

Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to control equipment meeting the requirements specified in OAC 3745-21-09(DD)(9) and (DD)(10) is excluded from these requirements.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(10) With the exception of an "in-situ sampling system" (a non-extractive sampler or an in-line sampler), each sampling connection system in the process unit shall be equipped with a closed purge system or a closed vent system that meets one of the following requirements:

a. the purged process fluid is returned directly to the process line with zero VOC emissions to the ambient air;

b. the purged process fluid is collected and recycled with zero VOC emissions to the ambient air; or

c. the closed purge system or closed vent system is designed and operated to capture and transport all the purged process fluid to control equipment that meet the control equipment requirements specified in OAC 3745-21-09(DD)(10).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(11) Each open-ended valve or line in the process unit shall be equipped with a cap, blind flange, plug, or second valve which shall comply with the following requirements:

a. Except during operations requiring the flow of process fluid through the open-ended valve or line, the cap, blind flange, plug, or second valve shall seal the open end of the open-ended valve or line.

b. If equipped with a second valve, the open-ended valve or line shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

c. A bleed valve or line from a double block and bleed system may remain open during operations that require venting the line between the block valves, but the line/valve shall be sealed (as in “a” above) at all other times.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(12) A pump or compressor equipped with a seal that has a barrier fluid system and sensor, which are employed to meet the requirements of OAC 3745-21-09(DD)(2)(d)(ii) for a pump or 3745-21-09(DD)(3)(a) and (b) for a compressor, shall be operated and maintained to comply with thefollowing requirements.

a. The barrier fluid system shall meet one of the three following conditions:

i. The barrier fluid system is operated with a barrier fluid at a pressure that is greater, at all times, than the stuffing box pressure of the pump or compressor.

ii. The barrier fluid system is equipped with a barrier fluid degassing reservoir that is connected by a closed vent system to control equipment and the closed vent system and control equipment comply with the requirements specified in OAC 3745-21-09(DD)(9) and (DD)(10).

iii. The barrier fluid system is equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the ambient air.

b. The barrier fluid system shall be “in heavy liquid service” or shall <u>not</u> be “in VOC service”.

c. The barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both, based on design criteria and operating experience of the permittee.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

(13) A delay of the repair of a detected leak or a delay in returning a pressure relief valve/device to a condition of "no detectable emissions" shall be allowed only if complying with the following requirements:

a. A delay of repair shall be allowed if the repair is technically infeasible without shutdown of the process unit. However, the repair shall occur before the end of the next process unit shutdown.

b. A delay of repair shall be allowed for a piece of equipment that is isolated from the process and that does not remain "in VOC service" (for example, isolated from the process and properly purged).

c. A delay of repair for a valve shall be allowed if:

i. it can be demonstrated that the emissionsfrom purged material resulting from immediate repair is greater than the emissions likely to result from delay of repair; and

ii. the purged material is collected and destroyed or recovered in control equipment that meets the requirements specified in OAC 3745-21-09(DD)(10).

d. A delay of repair for a valve beyond a process unit shutdown shall be allowed if:

i. a valve assembly replacement is necessary during the process unit shutdown, and

ii. the valve assembly supplies have been depleted, and

iii. valve assembly supplies had been sufficiently stocked before the supplies were depleted.

A delay of repair beyond the next process unit shutdown shall not be allowed for the valve unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

e. A delay of repair for a pump shall be allowed if:

i. the repair requires the use of a dual mechanical seal system and associated barrier fluid system; and

ii. the repair is completed as soon as practicable, but no later than 6 months after the leak was detected.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(A)(1))

d) Monitoring and/or Recordkeeping Requirements

<u>Baghouse Requirements</u>

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 6.0 inches of water.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit,the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

Primary Process Enclosure Requirements

(3) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):

a. the measured diameter of each natural draft opening;

b. the distance measured from each natural draft opening to each VOC emitting point;

c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;

d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and

e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C)(1), and 40 CFR 51, Appendix M, Method 204)

(4) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or

above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and

b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-77-07(C)(1), and 40 CFR 51, Appendix M, Method 204)

LDAR Requirements

(5) Except as otherwise provided in OAC 3745-21-09(DD)(2)(c) and (DD)(2)(d), equipment shall be monitored for leaks in accordance with the method specified OAC 3745-21-10(F)and as follows:

a. Any pump "in light liquid service" shall be monitored monthly.

b. Any valve "in gas/vapor service" or "in light liquid service" shall be monitored monthly, except that quarterly monitoring may be employed where no leaks are detected during two consecutive months. Quarterly monitoring may begin with the next calendar quarter following the two consecutive months of no detected leaks. Monitoring shall be conducted in the first month of each calendar quarter; and quarterly monitoring may continue until a leak is detected, at which time monitoring shall again be employed monthly.

c. The following equipment shall be monitored within 5 calendar days after evidence of a leak or potential leak from the equipment by visual, audible, olfactory, or other detection method:

i. a pump "in heavy liquid service";

ii. a valve "in heavy liquid service";

iii. a pressure relief device "in light liquid service" or "in heavy liquid service"; and

iv. a flange or other connector.

d. Any equipment in which a leak is detected, as defined in OAC 3745-21-09(DD)(2)(g), shall be monitored within 5 working days after each attempt to repair it, unless the equipment was not successfully repaired.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(6) For any valve "in gas/vapor service" or "in light liquid service", an alternative monitoring schedule may be employed, in lieu of the monitoring schedule specified in OAC 3745-21-09(DD)(2)(b)(ii), above, if meeting one of the three following requirements:

a. The valve is designated as "difficult to monitor"and is monitored once each calendar year if meeting all of the following conditions:

i. construction of the process unit commenced prior to May 9, 1986;

ii. the permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 6 feet above a support surface; and

iii. thepermittee has a written plan that requires monitoring of the valve at least once per year.

b. The valve is designated as “unsafe to monitor” and is monitored as frequently as practical during times when it is safe to monitor, provided the following conditions are met:

i. the permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring on a monthly basis; and

ii. thepermittee adheres to a written plan that requires monitoring of the valve as frequently as practical during times when it is safe to monitor.

c. The valve qualifies for an alternative monitoring schedule based on a “skip period” as allowedper OAC 3745-21-09(DD)(12).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(7) The permittee may elect to implement an alternative monitoring schedule, to that of OAC 3745-21-09(DD)(2)(b)(ii) and as identified below, for the process unit valves if the following conditions are met:

a. no more than 2.0% of the process unit valves are leaking;

b. the permitteenotifies the Director (the appropriate district office or local air agency) prior to implementing the alternative monitoring schedule; and such notification identifies:

i. which valves will be subject to the alternative monitoring schedule; and

ii. which work practice,identified in OAC 3745-21-09(DD)(12)(e), will be implemented;

c. the permittee monitors the valves initially monthly, to quarterly, as allowed and according to the requirements specified in OAC 3745-21-09(DD)(2)(b)(ii); and

d. the valves continue to meet with the conditions specified in OAC 3745-21-09(DD)(2)(g) to (DD)(2)(m).

If meeting all of the above conditions (“a” through ”d”), one of the following monitoring periods for valve leak detection may be implemented:

a. after two consecutive quarterly leak detection periods with 2.0% or less of the process unit valves leaking, a monitoring program may begin in which the first quarter of every two consecutive quarterly leak detection periods is skipped; or

b. after 5 consecutive quarterly leak detection periods with 2.0% or less of the process unit valves leaking, a monitoring program may begin in which the first three quarters of every four consecutive quarterly periods is skipped.

The alternative monitoring schedule shall be based on skipping quarterly monitoring periods. Any valve "in vacuum service", "in heavy liquid service", or not "in VOC service" shall be excluded from the monitoring schedule.If the percentage of valves leaking from the process unit becomes greater than 2.0%, the permittee shall again comply with the monitoring requirements specified in OAC 3745-21-09(DD)(2)(b)(ii), but may revert tothis alternative monitoring schedule after meeting and documenting all of the above requirements.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(8) The percentage of valves leaking,used toqualify for "skipped period" alternative monitoring schedule, shall be determined as the sum of the number of those valves found leaking during any portion of the current monitoring period and the number of those valves found leaking during a previous monitoring period for which repair has been delayed during the current monitoring period, divided by the total number of valves, and multiplied by 100.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(9) The following information shall be recorded in a log, that is kept in a readily accessible location,if the"skipped period" alternative monitoring schedule for leak detection of process unit valves is established:

a. the identification numbers of the valves subject to the alternative monitoring schedule;

b. the schedule established for monitoring the subject valves;

c. the valves exempt from the alternative monitoring schedule and reason for the exemption, i.e., "in vacuum service", "in heavy liquid service", or not "in VOC service";

d. the percentage of valves leaking during each monitoring period; and

e. the maximum instrument reading and date each valve was monitored.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(10) The permittee may elect to implement an alternative monitoring schedule to that of OAC 3745-21-09(DD)(2)(b)(ii) for the process unit valves, as provided in OAC 3745-21-09(DD)(2)(d)(v), if the following conditions are met:

a. it can be demonstrated that no more than 2.0% of the process unit valves are leaking;

b. the permittee notifies the Director (the appropriate district office or local air agency) prior to implementing thealternative monitoring standard;

c. the demonstration of compliance to document thatthe percentage of valves leaking does not exceed 2.0% is conducted initially upon implementation and annually thereafter and as follows:

i. all valves subject to the alternative monitoring standard shall be monitored for leaks within a one-week period by the method specified in OAC 3745-21-10(F);

ii. any leak detected and measured with an instrument reading of 10,000ppmv or greater shall be recorded as a leak; and

iii. the percentage of valves leaking shall be determined as the number of valves for which a leak is detected, divided by the number of valves monitored, and multiplied by 100.

All valves “in gas/vapor service” or “in light liquid service” in the process unit shall be subject to this alternative monitoring standard, except for valves not“in VOC service”, valves “in vacuum service”, and valves which are designated as unsafe to monitor as provided in OAC 3745-21-09(DD)(2)(c)(ii).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(11) When a leak is detected as described above, the leaking valve shall be repaired in accordance with OAC 3745-21-09(DD)(2)(h) and (DD)(2)(i). If the percentage of valves leaking from the process unit becomes greater than 2.0%, the permittee shall again comply with the monitoring requirements specified in OAC 3745-21-09(DD)(2)(b)(ii), but may revert tothis alternative monitoring schedule after meeting and documenting all of the above requirements.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(12) The following equipment is excluded from the monitoring requirements of OAC 3745-21-09(DD)(2)(b):

a. any pump that has no externally actuated shaft penetrating the pump housing and that is designated for no detectable emissions as provided in OAC 3745-21-09(DD)(7);

b. any pump that is equipped with a dual mechanical seal which has a barrier fluid system and sensor that comply with the requirements specified in OAC 3745-21-09 (DD)(8);

c. any pump that is equipped with a closed vent system capable of capturing and transporting any leakage from the pump seal to control equipment, provided the

closed vent system and the control equipment comply with the requirements specified in OAC 3745-21-09(DD)(9) and (DD)(10);

d. any valve that has no externally actuated stem penetrating the valve and that is designated for “no detectable emissions” as provided in OAC 3745-21-09(DD)(7); and

e. any valve that qualifies for the alternative monitoring standardbased on the percentage of valves leaking, as provided in OAC 3745-21-09(DD)(13).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(13) Any pump “in light liquid service” shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, unless the pump is equipped with a closed vent system capable of transporting any leakage from the pump seal to control equipment, and the closed vent system and control equipment comply with the requirements specified in OAC 3745-21-09(DD)(9) and (DD)(10).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(14) Any sensor employed pursuant to OAC 3745-21-09(DD)(2)(d)(ii), for a pump equipped with a dual mechanical seal using a barrier fluid system and sensor; or a sensor employed pursuant to OAC 3745-21-09(DD)(3)(b), for a compressor equipped with a seal using a barrier fluid system and sensor;and complying with the requirements specified in OAC 3745-21-09(DD)(8), shall be checked daily, unless the sensor is equipped with an audible alarm.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(15) A leak is detected when:

a. a concentration of 10,000 ppmv or greater is measured from a potential leak interface of any equipment, that is monitored for leaks using the method specified in OAC 3745-21-10(F);

b. there is an indication of liquids dripping from the seal of a pump “in light liquid service”; or

c. a sensor employed pursuant to OAC 3745-21-09(DD)(2)(d)(ii) or (DD)(3)(b) indicates failure of the seal system, the barrier fluid system, or both.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(16) When a leak is detected, the following information shall be recorded in the leak repair log:

a. the identification number of the leaking equipment;

b. for each leakrequired to be monitored, the identification numbers of the leak detection instrument and its operator;

c. how the leak was detected, e.g., monitoring, visual inspection, odor detected, or sensor alarm/signal;

d. the date on which the leak was detected and the date of each attempt to repair the leaking equipment;

e. the methods of repair applied in each attempt to repair the leak;

f. one of the following entries within 5 working days after each attempt to repair the leaking equipment:

i. “not monitored," denoting the leaking equipment was presumed to still be leaking and it was not monitored; or

ii. if the leaking equipment was monitored with a leak detection instrument, the maximum concentration that was measured as follows:

(a) the actual reading in ppmv; or

(b) a record stating that the measured concentration was “below 10,000 ppmv”; or

(c) a record stating that the measured concentration was “above 10,000 ppmv”;

g. if the leak is not repaired within 15 calendar days after the date on which it was detected:

i. a record stating that repair was delayed and the reason for the delay;

ii. if repair is being delayed until the next process unit shutdown due to technical infeasibility of repair, the signature of the operator whose decision it was that repair is technically infeasible without a process unit shutdown;

iii. the expected date of successful repair of the leak; and

iv. the dates of process unit shutdowns that occur while the leaking equipment is unrepaired; and

h. the date on which the leak was successfully repaired.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(17) The leak repair log shall be kept in a readily accessible location and maintained by the operator of the process unit. Each record shall be retained in the log for a minimum of two years following the date on which it was recorded.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(18) The following information shall be recorded for the/each process unit in a log that is kept in a readily accessible location:

a. a list of identification numbers for equipment subject to the requirements of OAC 3745-21-09(DD)(2) to (DD)(10);

b. a list of identification numbers for equipment designated for "no detectable emissions" as provided in OAC 3745-21-09(DD)(7), and the signature of the permittee/operator authorizing the designation of each piece of equipment;

c. a list of identification numbers for pressure relief devices subject to OAC 3745-21-09(DD)(4);

d. a list of identification numbers for closed vent systems subject to OAC 3745-21-09(DD)(9);

e. for compliance tests required under OAC 3745-21-09(DD)(4)(c), (DD)(7)(c), and (DD)(9)(c):

i. the date each compliance test is conducted;

ii. the background VOC emissions level measured during each compliance test; and

iii. the maximum instrument reading measured at the equipment during each compliance test;

f. the following information pertaining to valves subject to an alternative monitoring schedule, as provided in OAC 3745-21-09(DD)(2)(c):

i. a list of identification numbers for valves designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve;

ii. a list of identification numbers for valves designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the schedule for monitoring each valve; and

iii. a list of identification numbers for valves subject to the alternative monitoring schedule based on a "skip period", a schedule for monitoring these valves, and the percentage of valves leaking during each monitoring period;

g. the following information pertaining to closed vent systems and control equipment meeting the requirementsofOAC 3745-21-09(DD)(9) and (DD)(10):

i. detailed schematics, design specifications, and piping and instrumentation diagrams for the closed vent systems and collection and control equipment;

ii. the dates and descriptions of any changes in the design specifications above;

iii. a description of the parameter(s) monitored, as required in OAC 3745-21-09(DD)(10)(d), to ensure that the control equipment is operated and maintained in conformance with its design, and the reason for selecting the parameter(s);

iv. periods when the closed vent systems and control equipment are not operated as designed, including periods when a flare pilot light does not have a flame; and

v. dates of startups and shutdowns of the closed vent systems and control equipment;

h. the following information pertaining to barrier fluid systems and sensors described in OAC 3745-21-09(DD)(8):

i. a list of identification numbers of pumps and compressors equipped with such barrier fluid systems and sensors;

ii. the criteria that indicate failure of the seal system, the barrier fluid system, or both, as required in OAC 3745-21-09(DD)(8)(d) and an explanation of the criteria; and

iii. any changes to such criteria and the reasons for the changes;

i. the following information for use in determining an exemption for the process unit as provided in OAC 3745-21-09(DD)(17)(a):

i. an analysis demonstrating the design capacity of the process unit;

ii. a statement listing the feed and raw materials and products from the process unit and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohols; or

iii. an analysis demonstrating that equipment that is documented as “not in VOC service” meets this condition; and

j. the following information pertaining to specific equipment that are exempt as provided in OAC 3745-21-09(DD)(17)(b):

i. a list of identification numbers of equipment “in vacuum service”;

ii. a list of identification numbers of equipment “not in VOC service” and the information or data used to demonstrate this; and

iii. a list of equipment subject to an equivalent emission requirement that is approved by the Director pursuant to OAC 3745-21-09(DD)(16).

One recordkeeping system may be used to comply with the recordkeeping requirements for multiple process units provided the system identifies each process unit to which each record pertains.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(19) The following facility process units are exempted from the requirements of OAC 3745-21-09(DD)(2) to (DD)(6). Records shall be maintained to identify and document the process unit equipment meeting these requirements:

a. any process unit that has a design capacity to produce less than 1,100 tons per year;

b. any process unit that produces only heavy liquid chemicals from heavy liquid feed or raw materials;

c. any process unit that produces beverage alcohol;

d. any process unit that has no equipment "in VOC service" as determined in accordance with OAC 3745-21-10(O)(2); and

e. any process unit at a petroleum refinery, as defined in OAC 3745-21-01(E)(15).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(20) The following process equipment are exempt from the requirements of OAC 3745-21-09(DD)(2) to (DD)(6). Records shall be maintained to identify and document the process unit equipment meeting these requirements:

a. any equipment "not in VOC service", as determined in accordance with OAC 3745-21-10(O)(2);

b. any equipment "in vacuum service"; and

c. any equipment subject to an equivalent emission limitation as provided in OAC 3745-21-09(DD)(16).

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

CAM Requirements

(21) The CAM plan for this emissions unit has been developed for TCE emissions. The CAM performance indicator for TCE emissions is monitoring the addition of TCE to the Teslin process, minus TCE removed as liquid from the process to obtain a direct measurement of overall system efficiency. When the overall system efficiency drops below 91 percent and/or the calculated hourly emission rate exceeds 8.9 pounds per hour, corrective action (including, but not limited to, an evaluation of the emissions unit and carbon adsorption unit) will be required. Upon detecting an excursion of TCE performance indicator, the permittee shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The

response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion.

If the overall system efficiency drops below 90 percent and/or the calculated hourly emission rate for TCE exceeds 9.0 pounds per hour for more than 5 percent of the daily calculations performed each month, the permittee shall develop a Quality Improvement Plan consistent with the requirements specified in 40 CFR Part 64.8.

(Authority for term: 40 CFR Part 64 and OAC rule 3745-77-07(C)(1))

Emission Requirements

(22) The permittee shall calculate and record, on a daily basis, the combined stack and fugitive emissions and overall control efficiency for organic compounds (combined stack and fugitive emissions) for this emissions unit. The combined stack and fugitive emissions, and overall control efficiency shall be calculated based upon the methodology specified in section f)(1) of this permit.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(23) The permittee shall calculate and record, on an annual basis, the fugitive and stack emissions of TCE/OC from this emissions unit. Fugitive emissions shall be calculated using the methodology specified in section f)(1)e.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(24) The permittee shall calculate and record, on an annual basis, the mass emissions of particulates from this emissions unit.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through Ohio EPA's eBusiness Center: Air services online web portal.

(Authority for term: OAC rule 3745-15-03(A))

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

Baghouse

a. each period of time (start time and date, and end time and date)when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in “a” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in “a” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in “a” where proper records were not maintained for the investigation and/or the corrective action(s),as identified in the monitoring and record keeping requirements of this permit.

Primary Process Enclosures

f. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water.

Control Efficiency

g. Each day during which the organic compound emissions were not reduced by at least 90%, and the actual reduction amount for each such day as calculated based upon the methodology specified in f)(1)(f.

(Authority for term: OAC rule 3745-15-03(B)(1)(a) and OAC rule 3745-15-03(C); and OAC rule 3745-77-07(C)(1))

(3) The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

(4) The permittee shall submit annual reports that specify the total stack and fugitive emissions of TCE/OC, as calculated based upon the methodology specified in section f)(1)e., and that total PE for this emissions unit for the previous calendar year. The reports shall include the emission calculations and shall be submitted by April 30 of each year.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

LDAR

(5) Semiannual reports shall be submitted to the Director by the first day of February and August and shall include the following information for each preceding semiannual period of operations:

a. the process unit identification;

b. the number of pumps “in light liquid service”associated with the process unit,excluding:

i. pumps that have no externally actuated shaft penetrating the pump housing and designated for “no detectable emissions”; and

ii. pumps equipped with a closed vent system capable of capturing and transporting leakage from the pump seal to control equipment meeting the requirements of OAC 3745-21-09(DD)(9) and (DD)(10);

c. the number of valves “in gas/vapor service” or “in light liquid service”associated with the process unit,excluding:

i. valves that have no externally actuated stem penetrating the valve and designated for “no detectable emission”; and

ii. valves qualified for the alternative monitoring standard based on the percentage of valves leaking, under the provision of OAC 3745-21-09(DD)(13);

d. the number of compressorsassociated with the process unit, excluding:

i. compressors designated for and meeting the requirements for “no detectable emissions”;

ii. compressors equipped with a closed vent system capable of capturing and transporting leakage from the compressor seal to control equipment meeting the requirements of OAC 3745-21-09(DD)(9) and (DD)(10); and/or

iii. reciprocating compressors installed prior to 5/9/86, where it can be demonstrated that recasting or replacing the compressor would be the only means of complying with the requirement to equip it with a seal with a barrier fluid system and sensor;

e. for each month during the semiannual period:

i. the number of pumps “in light liquid service” for which leaks were detected (as required in this permit);

ii. the number of pumps “in light liquid service” for which leaks were not repaired within 15 calendar days after the date of leak detection;

iii. the number of valves “in gas/vapor service” or “in light liquid service” for which leaks were detected (as required in this permit);

iv. the number of valves “in gas/vapor service” or “in light liquid service” for which leaks were not repaired within 15 calendar days after the date of leak detection;

v. the number of compressors for which leaks were detected (as required in this permit);

vi. the number of compressors for which leaks were not repaired within 15 calendar days after the date of leak detection; and

vii. for each delay of repair allowed pursuant to OAC 3745-21-09(DD)(11), the reason for the delay;

f. the dates of process unit shutdowns that occurred within the semiannual period; and

g. the results of compliance tests for equipment identified as having "no detectable emissions", along with the associated equipment identification numbers from the compliance log.

Semiannual reports shall be submitted to the appropriate Ohio EPA district office or local air agency by the first day of February and August and shall include information for the preceding semiannual period.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(6) The permittee shall notify the appropriate Ohio EPA district office or local air agency of the intent-to-test the process control equipment not less than 30 daysbefore the proposed initiation of the testing. The following information shall be included in the notification

a. a statement indicating the purpose of the proposed test and the applicableparagraph of OAC 3745-21-09 for which compliance will be demonstrated;

b. a detailed description of the process unit and control device to be tested;

c. a detailed description of the test procedures, equipment and sampling sites;and

d. a timetable, setting forth the dates on which:

i. the testing will be conducted; and

ii. the final test report will be submitted.

The results of such compliance tests shall be reported to the appropriate Ohio EPA district office or local air agency within 30 days following the test date.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

f) Testing Requirements

(1) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

Visible PE shall not exceed 5% opacity, as a 6-minute average.

Visible PE shall not exceed 20% opacity, as a 6-minute average. (P115)

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitations in accordance with Method 9 of 40 CFR Part 60, Appendix A.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-03(B)(1) and OAC rule 3745-77-07(C)(1))

b. Emission Limitations (P115):

PE shall not exceed 0.03 gr/scf.

PE shall not exceed 0.5 pounds per hour, and 2.2 tons per year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly and gr/scf limitations based on the results of emission testing conducted in accordance with Methods 1 - 5, of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the hourly limitation is maintained.

(Authority for term: OAC rule 3745-31-05(A)(3), OAC rule 3745-17-03(B)(10) and OAC rule 3745-77-07(C)(1))

c. Emission Limitations (P115):

PE shall not exceed 3.75 pounds per hour.

PM10 shall not exceed 9.9 tpy

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly limitation based on the results of emission testing conducted in accordance with Methods 1 - 5, of 40 CFR Part 60, Appendix A.

The annual limitation was established based on the uncontrolled potential to emit for PM10 and taking into account the use of a baghouse with a minimum control efficiency of 90%, by weight.

Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

d. Emission Limitation:

TCE/OC emissions shall not exceed 9.0 pounds per hour (combined stack and fugitive emissions).

Applicable Compliance Method:

Combined stack and fugitive emissions 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 emission 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 three lines) (hrs) [production records]

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

i. Calculate daily point source emissions from the combined operation of Lines 2, 3, and 4: (lbs)

Eads = H x Rads

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

Etot = MD - W

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

Etot30 = Summation30(Etot) (for day plus previous 29 days)

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

Eads30 = Summation30 Eads (for day plus previous 29 days)

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

Efug30 = Etot30 - Eads30

vi. Calculate hourly average fugitive emissions: (lbs/hr)

Efug hourly = Efug30 / (summation30 H)

vii. Calculate hourly average fugitive emissions from Line 3 and Line 4: (lbs/hr)

Efug hourly L3 = Efug hourly / 3 (P114)

Efug hourly L4 = Efug hourly / 3 (P115)

If either Lines 2, 3 or 4 are not operating and does not contain TCE on a given operating day, no fugitive emissions shall be allocated to that line for that operating day.

viii. Calculate hourly average combined stack and fugitive emissions for Line 3 and Line 4: (lbs/hr)

Avg Emissions L3 = Efug hourly L3 + Rads/3 (P114)

Avg Emissions L4 = Efug hourly L4 + Rads/3 (P115)

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

e. Emission Limitation:

TCE/OC emissions shall not exceed 39.4 tons per year (combined stack and fugitive emissions).

Applicable Compliance Method:

Annual emissions shall be calculated 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 reach drum of material removed]

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

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

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

i. Calculate daily point source emissions from the combined operation of Line 2, Line 3, and Line 4: (lbs)

Eads = H x Rads

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

Etot = MD - W

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

Etot30 - Summation30(Etot) (for the current day plus previous 29 days)

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

Eads30 = Summation30(Eads) (for the current day plus previous 29 days)

v. Calculate fugitive emissions as a rolling 30-day summation (lbs)

Efug30 = Etot30 - Eads30

vi. Calculate total daily average fugitive emissions: (lbs)

Efug daily = Efug30 / 30

vii. Calculate daily average fugitive emissions from each line: (lbs)

Efug daily L2 = (Efug daily) / 3 (P110)

Efug daily L3 = (Efug daily) / 3 (P114)

Efug daily L4 = (Efug daily) / 3 (P115)

If either Line 2, Line 3, or Line 4 is not operating and does not contain TCE on a given operating day, no fugitive emissions shall be allocated to that line for that operating day.

viii. Calculate year-to-date fugitive emissions from each line: (tons)

Efugytd L2 = [SummationYTD(Efug daily L2)] / 2000 (P110)

Efugytd L3 = [SummationYTD(Efug daily L3)] / 2000 (P114)

Efugytd L4 = [SummationYTD(Efug daily L4)] / 2000 (P115)

ix. Calculate year-to-date fugitive and stack emissions from lines 3 and 4 (P114 and P115) (tons):

Ecomytd L3 = Efugytd L3 + [SummationYTD (Eads)] / 3] / 2000 (P114)

Ecomytd L4 = Efugytd L4 + [SummationYTD (Eads)] / 3] / 2000 (P115)

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

f. Emission Limitation:

90% reduction of TCE, as a 30-day rolling average, calculated on a daily basis (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 section d)(22) and by the results of emission testing in accordance with Methods 1 through 4, and 18 of 40 CFR Part 60 Appendix A as specified in section f)(2).

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 reach drum of material removed]

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

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

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

i. Calculate daily point source emissions from the combined operations of Line 2, Line 3, and Line 4: (lbs)

   Eads = H x Rads

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

   Etot = MD - W

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

   Etot30 = Summation30(Etot) (for the current day plus previous 29 days)

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

   Eads30 = Summation30(Eads) (for the current day plus previous 29 days)

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

   Efug30 = Etot30 - Eads30

vi. Calculate daily average fugitive emissions: (lbs)

Efug daily = Efug30 / 30

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

Efug daily L2 = Efug daily / 3

viii. Calculate daily average fugitive emissions from Line 3: (lbs)

Efug daily L3 = Efug daily / 3

ix. Calculate daily average fugitive emissions from Line 4: (lbs)

Efug daily L4 = Efug daily / 3

If either Line 2, Line 3, or Line 4 is not operating and does not contain TCE on a given operating day, no fugitive emissions shall be allocated to that line for that operating day.

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

R30 = Summation30(R) (for the current day plus previous 29 days)

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

Ravg daily = R30 / 30

xii. Overall removal efficiency (%) shall be calculated daily in accordance with the following methodology and compared to the allowable value of 90%:

Overall removal efficiency (%) = [Ravg Daily / (Ravg daily + Etot30 / 30)] * 100%

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

g. Emission Limitation:

99% control efficiency of carbon adsorption unit, or 5 ppm outlet gas concentration.

Applicable Compliance Method:

Compliance shall be demonstrated based on the results of emissions testing conducted in accordance with the requirements specified in section f)(2) below.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

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

a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for OC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 thought 4, and 18 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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 3745-21-10 or an alternative test protocol approved by the Ohio EPA. 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.

d. If the emission testing is conducted simultaneously for all three emission units, P110, P114, and P115, emission testing for each individual line shall not be required.

e. 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.

f. 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).

g. 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.

h. 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.

(Authority for term: OAC rule 3745-21-10 and OAC rule 3745-15-04 and OAC rule 3745-77-07(C)(1))

(3) Any closed vent system, that is used to comply with the collection and control requirements of this permit, shall be operated and maintained to comply with the following requirements:

a. The closed vent system shall be designed and operated with “no detectable emissions”, as indicated by an instrument reading of less than 500 ppmv above background, as measured by the method specified in OAC 3745-21-10(F). The closed vent system shall be tested for compliance with this limitation initially upon designation and annually thereafter.

b. The closed vent system shall be operated at all times when emissions may be vented to it.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(4) The detection of leaks of VOC into the ambient air from the chemical manufacturing equipment shall be determined as follows:

a. The detection of leaks shall be determined in accordance with the test procedure set forth in U.S. EPA Method 21.

b. The leak detection instrument shall be calibrated before each use.

(Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1))

(5) Any piece of equipment is presumed to be “in VOC service”, unless the permittee demonstrates that the piece of equipment is “not in VOC service” according to the following provisions:

a. The piece of equipment is considered “not in VOC service” if it can bedetermined that the VOC content of the process fluid, which is contained inor contacts the piece of equipment, can be reasonably expected never toexceed 10% by weight.

b. Procedureshat conform to the general methods described in ASTM E168-99(2004),ASTM E169-04, and ASTM E260-73 shall be used to determine the VOC content of a process fluid.

c. The permittee may use engineering judgment rather than the above ASTM methods,where it can be clearly demonstrated thatthe VOC content of a process fluid does not exceed 10% by weight.In the event the Ohio environmental protection agency or the U.S. EPA has adisagreement with an engineering judgment, the appropriate ASTM method shall be used to resolve the disagreement.

(Authority for term: OAC rule 3745-31-05(A)(3)*and OAC 3745-21-10(O)(2))*

(6) A piece of equipment is “in light liquid service” if it contains or is in contact with aprocess fluid that meets all of the following conditions:

a. The process fluid is a liquid at operating conditions.

b. The vapor pressure of one or more of the pure components within theprocess fluid is greater than 0.04 pound per square inch at 68 degrees Fahrenheit.

c. The total concentration of the pure components having a vapor pressuregreater than 0.04 pound per square inch at 68 degrees Fahrenheit isequal to or greater than 20% by weight.

Vapor pressures may be obtained from standardreference texts or may be determined by the method in ASTM D2879-70.

(Authority for term: OAC rule 3745-31-05(A)(3)and OAC 3745-21-10(O)(3))

g) Miscellaneous Requirements

(1) None.