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

8/22/2011

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Mrs. Kelly Winfield
The Lubrizol Corporation
155 Freedom Road
Painesville, OH 44077

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0243000024
Permit Number: P0108194
Permit Type: Initial Installation
County: Lake

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains 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 PTI 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 Ohio EPA DAPC, Northeast District Office. 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
Ohio EPA-NEDO; Pennsylvania; Canada

Response to Comments

Facility ID:	0243000024
Facility Name:	The Lubrizol Corporation
Facility Description:	Manufacturer of specialty chemicals
Facility Address:	155 Freedom Road Painesville, OH 44077-1234 Lake County
Permit:	P0108194, Permit-To-Install - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Lake County News-Herald on 07/16/2011. The comment period ended on 08/15/2011.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

a. Comment: Lubrizol commented that the flare was installed prior to 1988 thus is not subject to the requirements in OAC rule 3745-21-09(LL).

b. Response: Minor clarifications added to the permit indicating the flare requirements are not applicable to this backup flare.

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Permit-to-Install
for
The Lubrizol Corporation

Facility ID:	0243000024
Permit Number:	P0108194
Permit Type:	Initial Installation
Issued:	8/22/2011
Effective:	8/22/2011

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
The Lubrizol Corporation

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Authorization

Facility ID: 0243000024
Facility Description: Manufacturer of specialty chemicals
Application Number(s): A0041967
Permit Number: P0108194
Permit Description: Installation of a chemically manufacturing process including reaction vessels and tanks controlled by a fume incinerator.
Permit Type: Initial Installation
Permit Fee: $500.00
Issue Date: 8/22/2011
Effective Date: 8/22/2011

This document constitutes issuance to:

The Lubrizol Corporation
155 Freedom Road
Painesville, OH 44077-1234

of a Permit-to-Install for the emissions unit(s) identified on the following page.

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)425-9171

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0108194
Permit Description: Installation of a chemically manufacturing process including reaction vessels and tanks controlled by a fume incinerator.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**P124**
Company Equipment ID:	Process AP
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

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.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) 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.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. 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 re-issuance, or modification.

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, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

4. Monitoring and Related Record Keeping and Reporting Requirements

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

(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.

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, 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.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written 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. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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.

c) 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 ORC section 3704.08.

(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.

d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have

been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit 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) by submitting a certification from the authorized 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 authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as “permanently shut down” in Ohio EPA’s “Air Services” along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

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

16. 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the “Owner/Contact Change” functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. Risk Management Plans

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

19. 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.

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. Voluntary Requirements to Limit Hazardous Air Pollutants Facility-wide

   a) Voluntary emission limitations established according to OAC rule 3745-77-07(B)

      (1) Beginning no later than May 10, 2008, the emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility, shall not exceed 9.9 tpy for any individual HAP and 24.9 tpy for total combined HAPs, as rolling, 12-month summations.

      The company proposed these emission limits to avoid being classified as a major source for HAPs as defined in section 63.2 of 40 CFR Part 63 for any Maximum Achievable Control Technology (MACT) standards with an initial compliance date on or after November 10, 2006 (i.e., Miscellaneous Organic Chemical Manufacturing MACT, 40 CFR Part 63, Subpart FFFF; Commercial, Industrial and Institutional Boiler MACT, 40 CFR Part 63. Subpart DDDDD and the Organic Liquid Distribution (Non-Gasoline) MACT); 40 CFR Part 63, Subpart EEEE).

      (2) Compliance with the emission limitation for individual HAP and total combined HAP shall be based upon a rolling, 12-month summation of the monthly emissions beginning no later than November 10, 2006, utilizing data for the previous 12 months.

   b) Monitoring and Recordkeeping

      (3) In order to determine compliance with the facility-wide emission limitations, the permittee shall maintain monthly records of the information designated in b)(1) through b)(3) for the following emissions unit categories:

      Combustion Units (B001, B002, B003, B004, B009, and insignificant units B006, B008);

      Waste Incinerator (N001):

      Reactor Process Vents (P001, P005, P006, P007, P008, P012, P013, P014, P015, P018, P019, P020, P022, P024, P025, P027, P029, P030, P033, P034, P035, P036, P050, P051, P052, P053, P073, P074 and P124);

      Loading Operations (P038, P039, P040, P041, P042, P044, P045, P046, P049, P055, P056, P057, P058, P059, P060, P061, P062, P063, P064, P067, P068, P071, P075);

      Storage Tanks (T013, T022, T023, T034, T073, T077, T122, T186;

      Insignificant Units (P079, P082, P083, P084, P085, P087, T001, T002, T003, T005, T006, T007, T008, T009, T010, T011, T012, T014, T015, T016, T017, T018, T019, T020, T021, T024, T025, T026, T027, T028, T029, T030, T031, T032, T033, T035, T036, T038, T039, T040, T041, T043, T044, T045, T046, T047, T053, T054, T055, T056, T058, T059, T060, T063, T071, T072, T074, T075, T076, T078, T079, T080, T081, T082, T083, T084, T085, T086, T087, T088, T089, T092, T093, T094, T095,

T096, T097, T098, T099, T100, T101, T102, T103, T104, T105, T106, T107, T108, T109, T110, T111, T112, T113, T114, T115, T116, T117, T118, T119, T120, T121, T124, T125, T126, T127, T128, T129, T130, T131, T132, T133, T138, T140, T143, T144, T145, T146, T147, T148, T149, T150, T151, T152, T153, T154, T155, T156, T157, T158, T159, T160, T161, T162, T163, T165, T166, T167, T169, T170, T171, T172, T173, T174, T177, T178, T179, T182, T183, T184, T185, T187, T188, T189, T190,T191, T192, T193, T195, T196, T197, T198, T199, T200, T201, T202, T203, T204, T206, T207, T208, T209, T210, T211, T213, T214, T215, T217, T218, T219, T220, T221, T222, T223, T226,T227, T228, T229,T230, T231, T232, T234, T235, T236, T237, T238, T239,T240, T241, T242, T243, T244, T245, T246, T254 , T255,);

and fugitive emissions from leaking components in HAP service not otherwise included in the categories above.

All other emissions units listed in the Title V permit either do not emit HAPs, or the emissions are so negligible that they cannot be reliably quantified. Total HAP emissions from these sources are presumed to be less than 0.1 tpy (the difference between the emission limitation in this permit and the major source threshold).

(4) HAP emissions shall be calculated as follows:

a. For storage tanks, loading operations, and reactor process vents, the permittee shall use the same calculation methodologies for determining HAP emissions as specified in this permit for determining VOC emissions, and then multiplying the VOC emissions by the weight percent HAPs present in the vapor and adjusting for the control efficiency of any emissions control system. Control efficiencies for organic HAPs shall be the same as the VOC control efficiencies determined in accordance with Title V requirements. Flares shall be assumed to have 98 percent control efficiency for organic HAPs and VOCs. See USEPA, Compilation of Air Pollutant Emission Factors (AP-42) section 13.5-4 (January 1995). Control efficiencies for inorganic HAPs (i.e., Hydrogen chloride, and halides) shall be determined by an engineering assessment. Such an engineering assessment will be completed by November 10, 2006 and submitted to the agency for review and approval. The control efficiencies so determined will be used to compute emissions for the 12 month period from November 2005 to November 2006 and thereafter. The permittee may revise the control efficiencies by submitting new information sufficient to demonstrate to the Ohio EPA Northeast District Office that another control efficiency is more representative of actual control device operating conditions. A change in a control efficiency factor shall constitute a minor modification to this permit. (See further details below.)

b. For boilers, HAP emissions shall be computed using emission factors from U.S. EPA's FIRE database based on SCC codes, and the amount of fuel burned. The permittee shall keep records of the amount of fuel burned each month for each emissions unit or category. The permittee may propose and the Ohio EPA Northeast District Office shall approve new emission factors to replace these FIRE emission factors upon demonstrating that the new factors are more accurate and better representative of actual emissions from the relevant emissions units. A change in these emission factors shall constitute a minor modification to this permit.

c. For the Waste Incinerator (N001), HAP emissions shall be determined based on site-specific emissions factors (expressed in pounds per hour) developed from source test and continuous monitoring data multiplied by actual hours of incinerator operation each month. The current emission factors for the incinerator are:

HAP	Em. Factor	Units
Lead	0.00087300	lbs/hr burning waste
Mercury	0.00013650	lbs/hr burning waste
Arsenic	0.00005480	lbs/hr burning waste
Berylium	0.00000170	lbs/hr burning waste
Cadmium	0.00001130	lbs/hr burning waste
Chromium	0.00008650	lbs/hr burning waste
Phenol	0.00000003	lbs/hr burning waste
Naphthalene	0.00000460	lbs/hr burning waste
Chlorine	0.00100000	lbs/hr burning waste
Hydrochloric acid	0.07000000	lbs/hr burning waste

The permittee may propose and the Ohio EPA Northeast District Office shall approve new emission factors to replace these emission factors upon demonstrating that the new factors are more accurate and better representative of actual emissions from the relevant emissions units. A change in these emission factors shall constitute a minor modification to this permit.

d. Fugitive emissions of HAPs from equipment leaks shall be computed using the emission factors from "Protocol for Equipment Leak Emission Estimates EPA-453/R-95/017 issued November 1995, or other approved alternate, and the number of pumps, valves, flanges, etc. to calculate the pounds per hour of fugitive VOC emissions, using SOCMI leak/no-leak, or ppmv screening value factors. The monthly fugitive HAP emissions (in pounds) shall be calculated by multiplying pounds per hour VOC emission rate by the percent HAPs in the fluid and multiplying the result by the monthly hours of operation of the equipment with HAPs present. If necessary, monitoring data to establish typical percent leaks or ppmv screening factors for sources in HAP service will be conducted prior to November 10, 2006, and will be used to determine emissions for the 12 month period from November 2005 to November 2006. Monitoring methods to establish leakage rates and maintenance methods are further described in B.3.

e. HAP emissions from other fugitive and stack sources shall be computed monthly using other Ohio EPA-approved calculation methods. These shall include ball houses, drip trays, and painting. Emissions from spills, hold tanks, charge tanks, filter cake hoppers, filters, and filter tanks, shall be included as parts of reactor processes.

The specific methodology used to calculate the HAP emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office on or before November 10, 2006. The permittee may revise the calculation methodologies by submitting

methodology revisions subject to the review and approval of the Ohio EPA Northeast District Office. A change in the calculation methodology shall constitute a minor modification to this permit. Calculations of all HAP emission factors shall be kept on site and available for Ohio EPA review.

f. For reactor vents, HAP emissions shall be determined based on product-specific emission factors (expressed in pounds per batch of each product) multiplied by the number of batches of that product made in a month, to determine the pounds of HAP emitted per product per month, and summed to reflect the total emissions from all products processed in the reactors in a month. The emission factors for the reactor vents shall be computed based on the engineering calculation methods for process vents contained in the Pharmaceutical NESHAP [40 CFR Part 63.1257(d)] or other Ohio EPA-approved calculation methods. The specific methodology used to calculate the HAP emissions, example calculations using the approved methodology, and the emission factors shall be submitted upon final issuance of this permit and shall be subject to the review and approval of the Ohio EPA Northeast District Office. Calculations of all HAP emission factors shall be kept on site and available for Ohio EPA review.

Similar products may be grouped together provided that the emission factor assigned to that group reflects the highest calculated emission factor for all products in the group. For new products that require a new emission factor, the permittee shall calculate the emission factor using the method described above and submit that calculation to the Ohio EPA's Northeast District Office. The new emission factor can be used immediately to determine monthly emissions but any adjustments to the emission factor required after Ohio EPA's review must be applied retroactively to the date the new product was introduced. A change in these emission factors shall constitute a minor modification to this permit. For reactor vents, the permittee shall submit HAP emission factors for all products produced in each process emissions unit.

g. For reactor process vents, the permittee shall collect and record the following information for each month:

i. the name of each hazardous air pollutant (HAP) used in or produced by the emissions unit;

ii. the HAP emission rate for each HAP, before control, in pounds per month for each emissions unit, using the following equation:

E (Uncontrolled) = (amount of each HAP emitted, in pounds/month);

iii. the HAP emissions for each HAP, after control, in pounds per month for each emissions unit, using the following equation:

E (Controlled) = (uncontrolled HAP emission rate, in lbs/month) x (1 - (CE/100))

where:

CE = the overall control efficiency of the emissions control system. For organic HAPs this shall be the same as the VOC control efficiency. For inorganic HAPs the control efficiency shall be determined by an engineering assessment pursuant to B.2.b)(2)a.

iv. the total individual HAP emission rate, after control (in lbs of HAP/month, determined by adding the values for each emissions unit);

v. the rolling, 12-month summation of the monthly HAP emissions for each individual HAP (in pounds, calculated by summing the monthly HAP emissions for the preceding 11 months plus the HAP emissions for the current month for all emissions units); and

vi. the total combined HAP emissions, in tons per month and tons per rolling, 12-month period (the sum of each HAP emitted in pounds divided by 2000 lbs/ton for all emissions units).

A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA District Office or local air agency contact.

h. For loading operations, the permittee shall collect and record each month the following information:

i. the throughput of each liquid containing HAPs, in gallons;

ii. the loading method for each type of liquid loaded;

iii. the method of HAP destruction used for each type of liquid loaded and the estimated overall HAP control efficiency (if applicable), in percent;

iv. the true vapor pressure of the liquid, in psia;

v. the molecular weight of vapors, in lb/lb-mol;

vi. the bulk temperature of liquid loaded, in degrees Rankin; and

vii. the weight percent of each individual HAP in the vapors.

i. For loading operations, the permittee shall record every month the sum of HAP emissions (MHAP) for each individual HAP from each liquid loaded according to the following equation:

MHAP = the sum, from i=1 to i=n, of (%HAP)(LL)(MTL / 1000)(1-C)(ton/2000 lbs)

where:

%HAP = the weight% HAP in the vapors;

i = each individual liquid loaded;

n = the total number of liquids loaded;

MTL = throughput of each liquid, in gal/month; and

C = overall control efficiency of the emissions control system (for organic HAPs this shall be the same as the VOC control efficiency).

For inorganic HAPs the control efficiency shall be determined by an engineering assessment pursuant to B.2.b)(2)a.

LL = the loading loss, in lb/1000 gal of liquid loaded, and is calculated according to the following equation from AP-42 at 5.2-4:

LL= (12.46 SPM / T)

where:

S = saturation factor from AP-42 (1/95) Table 5.2.1, Saturation(s) Factors for Calculating Petroleum Liquid Loading Losses;

P = true vapor pressure of the liquid, in psia;

M = molecular weight of vapors, in lb/lb-mol; and

T = bulk temperature of liquid loaded, in degrees Rankin.

j. For storage tanks containing HAPs, the permittee shall maintain monthly records documenting the following information:

i. the type of liquid stored;

ii. the weight percent of each individual HAP in the vapors; and

iii. the monthly throughput of liquid, in gallons.

k. For storage tanks containing HAPs, HAP emissions shall be computed using the throughput data, the storage tank dimensions, and U.S. EPA emission factors and equations found in AP-42, Section 7.1.3, "Emission Factors for Organic Liquid Storage Tanks" (September 1997), accounting for the weight percent HAPs in the vapors and adjusting for the control efficiency of any emissions control system.

(5) The permittee shall maintain records for the entire facility each month of the following information:

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

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

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

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

c) Reporting Requirements

(6) The permittee shall submit quarterly deviation (excursion) reports, with the requirements specified in the Standard Terms and Conditions, including the following information:

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

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

(7) The permittee shall submit annual reports that summarize the annual emissions of the combined HAP emissions for the facility and, if the combined HAP emissions are 10 tpy or more, the annual emissions of each individual HAP. These reports shall cover the previous calendar year and shall be submitted by April 30 of each year.

d) Testing Requirements

(8) Compliance with the allowable emission limitations in B.2.a)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitations</u>:

Beginning no later than May 10, 2008, the emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility, shall not exceed 9.9 tpy for any individual HAP and 24.9 tpy for total combined HAPs, as rolling, 12-month summations.

<u>Applicable Compliance Methods</u>:

Compliance shall be demonstrated based upon the record keeping requirements specified in B.2.b)(2) and B.2.b)(3).

3. Methodology to Monitor and Establish Fugitive Piping Leakage Rates and Maintain Equipment (as referenced in B.2.b)(2)(d):

a) Calculation Methods Using SOCMI Factors :

(9) Fugitive piping emissions shall be computed using SOCMI factors consistent with EPA document "Protocol for Equipment Leak Emission Estimates EPA-453/R-95/017 issued November 1995. This document contains several different types of SOCMI kg/hr emission factors:

SOCMI average emission factors (Table 2-1);

SOCMI screening range emission factors (Table 2-5), with leak/no-leak factors for >vs< 10,000 ppmv TOC; and

SOCMI leak rate/screening value correlations (Table 2-9). (These use specific ppmv values.)

The appropriate SOCMI kg/hr emission factors to use for computing fugitive piping leakage rates from each source at the facility will be determined according to B.3.a)(2) and B.3.a)(3) below.

(10) Equipment Using Instrument Monitoring For Leaks:

a. A representative sample of specific types of equipment (reactors, blend tanks, storage tanks, and filtration systems) in HAP service will be monitored prior to November 10, 2006 to measure ppmv TOC emissions from the following components: valves, flanges, pump seals, mixer seals, compressor seals, open ended lines, and pressure relief valves.

b. The representative sample of each type of equipment shall account for at least 50 percent of potential fugitive piping HAP emissions from all such equipment "in HAP service" based on SOCMI average emission factors. (Sources "in HAP Service" are defined to contain at least 5 percent HAP for 300 hrs/year or more). The specific equipment in the representative sample may be changed as needed to continue to account for at least 50 percent of potential fugitive piping HAP emissions.

c. For the monitored equipment, emissions will be computed based on the appropriate SOCMI leak/no-leak or ppmv factors from SOCMI Table 2-5 or 2-9.

d. A list of the specific representative equipment to be monitored shall be supplied to the Ohio EPA Northeast District Office by the compliance date (currently November 10, 2006). This list shall also identify the approximate percent of potential fugitive piping HAP emissions accounted for by the representative equipment.

e. The ppm TOC values measured for the representative equipment shall be used to determine the average leakage rate for each component type. (Component types would include valves, flanges, pump seals, etc. in light liquid, heavy liquid,

or gas service.) (Leakage rates will be based on SOCMI leak rate factors from Table 2-5 or 2-9). The average leakage rate data for each type of component determined from representative equipment monitoring data may be used to estimate the leakage rate of such sources for other equipment that was not monitored.

(11) Equipment Not Using Instrument Monitoring For Leaks:

f. If the vapor pressure of the fluid is less than 0.147 psia at processing temperatures, fugitive emissions may be estimated using SOCMI no-leak factors from Table 2-5. (Texas Natural Resources Conservation Commission document "Air Permit Technical Guidance for Chemical Sources: Equipment Leak Fugitives", dated October 2000, states that the theoretical saturation concentration as ppmv TOC cannot exceed 10,000 if the fluid vapor pressure is less than 0.147 psia.) Alternatively, emissions may be estimated as in (b) below.

g. If the vapor pressure of the fluid is greater than or equal to 0.147 psia at processing temperatures, fugitive emissions will be estimated based on the leakage rate data for each type of component from representative equipment monitoring, and the appropriate SOCMI leak rate factors from Table 2-5 or 2-9. This method may also be used if the vapor pressure is < 0.147 psia.

h. The number of each type of component (valves, flanges, pump seals, mixer seals, compressor seals, open ended lines, and pressure relief valves) associated with unmonitored equipment can be estimated based on the average number of such components for the representative equipment.

i. Fugitive piping HAP emissions will be computed for reactors, blend tanks, storage tanks, and filtration systems containing liquids with 0.1 percent or more of any individual HAP based on engineering judgment including but not limited to Material Safety Data Sheet information.

b) Continuous Compliance Assurance Monitoring and Maintenance Methods:

(12) The representative equipment will be monitored for ppmv TOC values yearly. Any components found to have >1000 ppmv TOC will be repaired. A reasonable effort will be made to complete repairs within 15 days.

(13) All storage tanks in HAP service, and their associated pumps and piping, shall be inspected monthly for leaks by audio, olfactory, and visual checks. A reasonable effort will be made to repair any leaks found within 15 days. During time periods when a component source was known to be leaking, emissions for the component shall be computed using the SOCMI factors for > 10,000 ppmv TOC unless ppmv data is available. If the sensory checks detect a leak, the permittee may choose to measure the ppmv TOC using a properly calibrated monitoring instrument, and compute emissions using the SOCMI emission factors most appropriate to the size of the leak.

(14) All reactor system tanks in continuous HAP service, and their associated pumps and piping, shall be inspected monthly for leaks by audio, olfactory, and visual checks. A reasonable effort will be made to repair any leaks found within 15 days. During time

periods when a component source was known to be leaking, emissions for the component shall be computed using the SOCMI factors for > 10,000 ppmv TOC unless ppmv data is available. If the sensory checks detect a leak, the permittee may choose to measure the ppmv TOC using a properly calibrated monitoring instrument, and compute emissions using the SOCMI emission factors most appropriate to the size of the leak.

(15) Reactor system tanks in non-continuous HAP service making products containing 5 percent or more HAPs, and their associated pumps and piping, shall be inspected for leaks by audio, olfactory, and visual checks. Such inspections shall be made monthly, or per batch if such products are made less frequently than monthly. A reasonable effort will be made to repair any leaks found within 15 days. During time periods when a component source was known to be leaking, emissions for the component shall be computed using the SOCMI factors for > 10,000 ppmv TOC unless ppmv data is available. If the sensory checks detect a leak, the permittee may choose to measure the ppmv TOC using a properly calibrated monitoring instrument, and compute emissions using the SOCMI emission factors most appropriate to the size of the leak.

c) Record Keeping Requirements:

For fugitive emissions of HAPs from equipment leaks, the permittee shall collect and record the following information:

(16) Monthly Records:

a. the name of each fluid containing HAPs in the equipment;

b. the type of fluid (light liquid, heavy liquid, or vapor);

c. the hours that the fluid was present in the equipment;

d. the vapor pressure of the fluid in the equipment, in psia;

e. the lb/hr leakage rate for the equipment based on the appropriate SOCMI emission factors;

f. the weight% of each individual HAP in the leaks;

g. records of audio, olfactory, visual or instrument checks of equipment in HAP service inspected monthly; and

h. dates when components were found to be leaking, and date when repaired.

(17) Annual Records:

i. ppmv TOC readings for representative equipment components;

j. the identification of each representative equipment component;

k. dates when representative equipment components were found to be leaking, and date when repaired; and

l. the average leakage rate of each type of component for the representative equipment per SOCMI Table 2-5 or 2-9.

(18) Batch Records:

m. records of audio, olfactory, visual or instrument checks of equipment in HAP service inspected each batch; and

n. dates when components were found to be leaking, and date when repaired.

C. Emissions Unit Terms and Conditions

1. P124, Process AP

Operations, Property and/or Equipment Description:

Production of lubricant additives through a condensation reaction using one reactor system. The reactor system may contain all or some of the following: reactors, filters, filter tanks, finish tanks, receiver tanks, feed tanks, mix tanks, holding tanks, charging tanks, drying tanks, and neutralization tanks. Volatile organic compounds (VOC) emissions from the one reactor system is controlled by an incinerator (AC-12 FmInc) followed by an emergency flare (S-4 Flare) as backup.

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.

(19) None.

b) Applicable Emissions Limitations and/or Control Requirements

(20) The specific operation(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 are identified below. 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) as effective 11/30/01	Nitrogen oxide (NO_x) emissions shall not exceed 1.50 lbs/hr and 6.57 tons per year from each thermal incinerator. CO emissions shall not exceed 1.26 lbs/hr and 5.52 tons per year from each thermal incinerator. VOC emissions shall not exceed 0.3 lb/hr and 1.2 tons per year from the AP process after controls. See b)(2)a, b)(2)b and b)(2)c.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	NO_x emissions shall not exceed 1.50 lbs/hr and 6.57 tons per year from each thermal incinerator. Carbon monoxide (CO) emissions shall not exceed 1.26 lbs/hr and 5.52 tons per year from each thermal incinerator. See b)(2)b and b)(2)d.
c.	OAC rule 3745-21-09(LL)	See b)(2)e through b)(2)i.

(21) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 31, 2001, in this permit. 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 U.S. EPA as a revision to Ohio's State Implementation Plan (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.

b. The short term emission limitations for NO_x and CO from each thermal incinerator was established to reflect the potential to emit; therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

c. The short term emission limitations for VOC was established to reflect the potential to emit; therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

d. 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.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) does not apply to the VOC emissions emitted by the AP Process since the potential to emit after controls is less than 10 tons/year.

e. The VOC emissions shall be controlled by an incinerator that meets the requirements of paragraph OAC rule 3745-21-09(LL)(1)(a), or a flare that meets the requirements of paragraph OAC rule 3745-21-09(DD)(10)(d), unless otherwise exempted by OAC rule 3745-21-09(LL)(3).

f. Total VOC emissions not controlled by an incinerator or a flare shall not exceed five tons per rolling, 12-month period, pursuant to OAC rule 3745-21-09(LL)(3)(a). The total VOC emissions not controlled by an incinerator or a flare shall be based on the emissions from all process vent streams.

g. Unless exempted by OAC rule 3745-21-09(LL)(3)(b), the incinerator shall be designed and operated as follows:

i. The incinerator shall reduce the VOC emissions vented to it with an efficiency of at least ninety-eight percent, by weight, or shall emit VOC at a concentration not exceeding twenty parts per million by volume (dry basis), either of which is determined under OAC rule 3745-21-10(C); or

ii. The incinerator shall provide a minimum residence time of 0.75 second at a minimum temperature of sixteen hundred degrees Fahrenheit.

h. Unless exempted by OAC rule 3745-21-09(LL)(3)(b), the flare shall be designed and operated as follows:

i. The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.

ii. The flare shall be operated with either an electric arc ignition system or a pilot flame. If a pilot flame is employed, the flame shall be present at all times and shall be monitored with a thermocouple or any other equivalent device to detect the presence of the pilot flame. If an electric arc ignition system is employed, the arcing shall pulse continually and shall be monitored to detect any failure.

iii. The flare shall be steam-assisted, air-assisted or non-assisted.

iv. The net heating value of the gas being combusted in the flare, as determined by the method specified in paragraph (P)(2) of rule 3745-21-10 of the Administrative Code, shall be three hundred Btu/scf or greater if the flare is steam-assisted or air-assisted, or shall be two hundred Btu/scf or greater if the flare is non-assisted.

v. Except as provided in the Standard Terms and Conditions of this permit, the flare shall be designed and operated with an actual exit velocity, as determined by the method specified in paragraph (P)(3) of rule 3745-21-10 of the Administrative Code, of less than sixty feet per second if the flare is steam-assisted or non-assisted, or less than the maximum permitted velocity, as determined in paragraph (P)(4) of rule 3745-21-10 of the Administrative Code, if the flare is air-assisted.

vi. Excluded from the requirements of the Standard Terms and Conditions of this permit is any steam-assisted or non-assisted flare that meets both of the following requirements:

(a) The net heating value of the gas being combusted in the flare, as determined by the method specified in paragraph (P)(2) of rule 3745-21-10 of the Administrative Code, shall be greater than one thousand Btu/scf.

(b) The flare shall be designed and operated with an actual exit velocity, as determined by the method specified in paragraph (P)(3) of rule 3745-21-10 of the Administrative Code, less than four hundred feet per second.

The currently installed backup flare is exempt from the requirements above according to OAC rule 3745-21-09(LL)(3)(b).

i. Any process wastewater shall be discharged to a wastewater separator that has all separator sections equipped with covers and seals which minimize the amount of VOC exposed to the ambient air.

c) Operational Restrictions

(22) None.

d) Monitoring and/or Recordkeeping Requirements

(23) The permittee shall develop emission factors for the amount of uncontrolled VOC emitted, either for each final product generated or for each batch run in this emissions unit, and shall include emissions from flushing. The emission factors shall be in units of tons of VOC emitted per ton of final product generated, or tons of VOC emitted per batch run.

(24) The permittee shall submit VOC emission factors for all products produced in this emissions unit. The emission factors for the reaction vessels, and all other pieces of equipment associated with this emissions unit, shall be computed based on calculation methods from the Emission Inventory Improvement Program Guidance Document, Volume II, Chapter 16: Methods for Estimating Air Emissions from Chemical Manufacturing Facilities or other Ohio EPA-approved calculation methods. Detailed calculations of all VOC emission factors shall be kept on site and available for Ohio EPA review.

(25) If necessary, the permittee shall conduct emission testing, at the request of the Northeast District Office, during the production of a specific final product to confirm the accuracy of the emission factor.

(26) The permittee shall keep records of all materials used in this emissions unit for the purpose of determining the emission factors.

(27) The permittee shall collect and record the following information for each month:

a. the company identification of each final product generated;

b. the quantity of each final product generated, in tons;

c. the number of batches run for each final product generated;

d. the minimum cycle time for each final product;

e. the emission factors used to determine the amount of VOC emitted for each final product generated (in tons of VOC/ton of final product generated or tons of VOC/batch run);

f. the VOC emission rate, for all final products generated, in which the VOC emissions were not controlled by the incinerator(s) or flare, in tons, using the following equation:

E (Uncontrolled) = (quantity of final product, in tons, or number of batches run) x (emission factor, in tons of VOC/ton of final product generated or tons of VOC/batch run);

g. the total VOC emission rate, for all final products generated, in which the VOC emissions were not controlled by the incinerator or flare(s), in tons per month;

h. the rolling, 12-month summation of the monthly VOC emissions, for all final products generated, in which the VOC emissions were not controlled by the incinerator(s) or flare (calculated by summing the monthly VOC emissions for the preceding 11 months plus the VOC emissions for the current month);

i. the VOC emission rate from the control device egress, for all final products generated, in which the VOC emissions were controlled by the incinerator(s) or flare, in tons, using the following equation:

E (Controlled) = (quantity of final product, in tons, or number of batches run) x (emission factor, in tons of VOC/ton of final product generated or tons of VOC/batch run) x (1 – capture and control efficiency of the control device determined by the most recent emission test);

(28) The permittee shall operate and maintain equipment to continuously monitor and record the average combustion temperature within the thermal incinerator during operation of this emissions unit, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

j. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than the average combustion temperature specified below or less than the average combustion temperature specified by the manufacturer; and

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

(30) Whenever the monitored value for the average combustion temperature deviates from the average combustion temperature specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

(31) 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 above the acceptable value specified below, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (minutes) during which there was a deviation, the average combustion temperature immediately after the corrective action, and the names 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.

(32) The acceptable average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, is not less than 1,600 degrees Fahrenheit, or shall meet the manufacturer's design specifications for temperature.

(33) This temperature level is effective for the duration of this permit. Any changes in the acceptable level must be approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the temperature level based upon information obtained during future VOC emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to the temperature level 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.

(34) A pilot flame shall be maintained in the flare's pilot light burner at all times the process vent stream is vented to the flare.

(35) The permittee shall properly operate, and maintain equipment to continuously monitor and record the presence of a pilot flame during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s).

(36) The permittee shall record the following information each day:

l. all periods during which there was no pilot flame; and

m. the operating times for the flare, monitoring equipment, and the associated emissions unit.

(37) Whenever the monitoring indicates that there is no pilot flame while the emissions unit is in operation, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

(38) 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 operating scenario, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the results of monitoring immediately after the corrective action, and the names 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.

(39) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the flare. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

n. the location and color of the emissions;

o. whether the emissions are representative of normal operations;

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

q. the total duration of any visible emission incident; and

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

At any time the permittee observes visible emissions from the flare, the permittee shall monitor the visible emissions for a minimum period of 10 minutes in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22 and record the results in an operations log.

e) Reporting Requirements

(40) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for VOC.

f) Testing Requirements

(41) Compliance with the allowable emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>:

VOC emissions shall not exceed 5 tons per rolling 12-month period from all process vent streams not controlled by the incinerator(s) or flare.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements specified in d).

If required, the emission factor for a final product shall be determined by emissions testing performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and Method 25 or 25A, or an alternative U.S. EPA-approved test method with prior approval from the Ohio EPA.

b. Emission Limitation:

NO_x emissions shall not exceed 1.50 lbs/hr and 6.57 tons per year from each thermal incinerator.

Applicable Compliance Method:

Compliance with the hourly limitation shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum input capacity of the gas burners.

E(NOx) = (15 mm BTU/hr) * [(100 lbs/mm scf) / (1,000 BTU/scf)]

If required, compliance shall be demonstrated based upon emissions testing performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and Method 7 or an alternative U.S. EPA-approved test method with prior approval from the Ohio EPA.

The tpy emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (1.50 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

CO emissions shall not exceed 1.26 lbs/hr and 5.52 tons per year from each thermal incinerator.

Applicable Compliance Method:

Compliance with the hourly limitation shall be based on a one time calculation by using emission factors from AP-42, Section 1.4 (1998) for natural gas combustion and the maximum input capacity of the gas burners.

E(CO) = (15 mm BTU/hr) * [(84 lbs/mm scf) / (1,000 BTU/scf)]

If required, compliance shall be demonstrated based upon emissions testing performed in accordance with the methods and procedures specified in 40 CFR

Part 60, Appendix A, Methods 1 through 5 and Method 10 or an alternative U.S. EPA-approved test method with prior approval from the Ohio EPA.

The tpy emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.26 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

VOC emissions shall not exceed 0.3 lb/hr and 1.2 tons per year from the AP process after controls.

Applicable Compliance Method:

Compliance with the hourly emission limitations shall be determined by use of the Emission Inventory Improvement Program Guidance Document, Volume II, Chapter 16: Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, or other emission calculator approved by the Ohio EPA, and control efficiency determined during the most recent incinerator compliance demonstration and the manufacturer's guaranteed control efficiency of the flare.

Compliance with the annual emission limitation shall be demonstrated by summation of the monthly VOC emission from the incinerator or flare recorded according to d)(5)i for the calendar year and the rolling, 12-month summation of VOC emissions not controlled by the incinerator or flare and dividing by 2000 pounds per ton if appropriate.

e. Emission Limitation:

Unless exempted by OAC rule 3745-21-09(LL)(3)(b), the flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

(42) Compliance for fume incinerator AC-12 FmInc shall be demonstrated by the testing conducted for emissions units P051 and P052. No additional testing shall be required for this emissions unit to comply with this emission limitation.

g) Miscellaneous Requirements

(43) None