



10/29/2024

Certified Mail

Carrie Beringer
Heritage Thermal Services
1250 Saint George St
East Liverpool, OH 43920

Facility ID: 0215020233
Permit Number: P0134491
County: Columbiana

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

Dear Permit Holder:

Enclosed is a final Ohio Environmental Protection Agency (EPA) Air Pollution 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. In this letter, you will find the information on the following topics:

- **Pay any applicable permit fee**
- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

Pay any applicable permit fee

If there is an enclosed invoice that is associated with this permit action, you must pay the invoice in 30 days. This permit fee supports Ohio EPA's activities to review and issue the necessary approvals for construction or modification of the affected sources. Failure to provide the applicable permit fee within 30 days may result in the accrual of substantial interest penalties. This permit is also conditioned on the payment of any applicable permit fee.

How to appeal this permit

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 Robert Sprague," 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
30 East Broad Street, 4th Floor

Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and state tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Ohio EPA document search website here: <https://epa.ohio.gov/help-center/edocument-search/edocument-search>.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northeast District Office as indicated on page one of your permit.

Sincerely,



Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Northeast District Office



**Environmental
Protection
Agency**

FINAL

**Division of Air Pollution Control
Title V Permit
for
Heritage Thermal Services**

Facility ID:	0215020233
Permit Number:	P0134491
Permit Type:	Renewal
Issued:	10/29/2024
Effective:	11/19/2024
Expiration:	11/19/2029



**Division of Air Pollution Control
Title V Permit
for
Heritage Thermal Services**

Table of Contents

Authorization.....3

List of Commonly Used Abbreviations4

A. Standard Terms and Conditions.....5

 1. Federally Enforceable Standard Terms and Conditions6

 2. Monitoring and Related Record Keeping and Reporting Requirements.....6

 3. Reporting of Any Exceedance of a Federally Enforceable Emission Limitation or Control Requirement Resulting from Scheduled Maintenance9

 4. Risk Management Plans.....10

 5. Title IV Provisions10

 6. Severability Clause10

 7. General Requirements10

 8. Fees12

 9. Marketable Permit Programs.....12

 10. Reasonably Anticipated Operating Scenarios12

 11. Reopening for Cause.....12

 12. Federal and State Enforceability13

 13. Compliance Requirements.....13

 14. Permit Shield14

 15. Operational Flexibility.....15

 16. Emergencies.....15

 17. Off-Permit Changes15

 18. Compliance Method Requirements16

 19. Insignificant Activities or Emissions Levels.....16

 20. Permit-to-Install Requirement.....16

 21. Air Pollution Nuisance.....16

 22. Permanent Shutdown of an Emissions Unit.....16

 23. Title VI Provisions17

 24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only17

 25. Records Retention Requirements Under State Law Only18

 26. Inspections and Information Requests.....18

 27. Scheduled Maintenance/Malfunction Reporting for State-Only Requirements.....18

 28. Permit Transfers18



Environmental Protection Agency

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations..... 19

30. Submitting Documents Required by this Permit..... 19

B. Facility-Wide Terms and Conditions 20

C. EU Terms and Conditions 25

 1. B006, GAS FIRED AUXILIARY BOILER 26

 2. F001, PAVED AND UNPAVED ROADWAYS AND PARKING AREAS..... 30

 3. F002, LOOSE SOLID WASTE RECEIVING AND HANDLING OPERATIONS 34

 4. F004, PNEUMATIC LIME & ACTIVATED CARBON HANDLING SYSTEM 46

 5. N001, HAZARDOUS WASTE INCINERATOR 51

 6. P001, CONTAINER PROCESSING..... 70

 7. P003, TANKER TRANSFER STATION (BAY 2)..... 81

 8. P004, TANKER TRANSFER STATION (BAY 3)..... 89

 9. P005, TANKER TRANSFER STATION (BAY 1)..... 97

APPENDIX A..... 105

APPENDIX B – FEED STREAM ANALYSIS PLAN..... 108

40 CFR 63.1209(c)(2)(i) requires that the FSAP specify “[t]he parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section.” The feed parameters (operating parameters related to feed rates) established to demonstrate compliance with the HWC MACT are identified in Table 2-1. 109

Table 2-1 – Waste Feed Operating Parameters 109

40 CFR 63.1209(c)(2)(i) requires the FSAP to specify “[t]he parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section.” 40 CFR 1209(c)(2)(iv) requires the FSAP to specify “[t]he test methods which you will use to obtain the analyses.” Table 2-2 lists the parameters for which HTS analyzes the pre-acceptance samples and lists the methods by which this analysis is performed. 113

Table 2-2 Parameters and Analytical Methods 113

Calculation 116

Calculation 117

Authorization

Facility ID: 0215020233
Facility Description: Hazardous Waste Incinerator
Application Number(s): M0007485, A0074595
Permit Number: P0134491
Permit Description: Title V permit renewal and minor permit modification for a hazardous waste incinerator.
Permit Type: Renewal
Issue Date: 10/29/2024
Effective Date: 11/19/2024
Expiration Date: 11/19/2029
Superseded Permit Number: P0128768

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

Heritage Thermal Services
1250 St. George Street
East Liverpool, OH 43920-3400

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

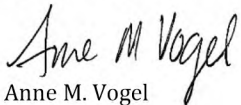
Ohio EPA DAPC, Northeast District Office
2110 East Aurora Rd.
Twinsburg, OH 44087
(330)963-1200

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 Ohio EPA DAPC, Northeast District Office. 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 and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Entered into the Journal of the Director on:



Anne M. Vogel
Director

Date: 10/29/2024

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM ₁₀ = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	PM _{2.5} = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m ³ = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH ₄ = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO ₂ = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m ³ = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH ₃ = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO ₂ = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO _x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO ₂ = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H ₂ S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H ₂ SO ₄ = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m ³ = micrograms per cubic meter

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. 21., Air Pollution Nuisance
 - (2) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (4) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting for State-Only Requirements
 - (5) 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
 - (6) Standard Term and Condition A. 30., Submitting Documents Required by this Permit

(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 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 submitted scheduled maintenance requests, 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 submitted promptly to the Ohio EPA DAPC, Northeast District Office. Except as provided below, the written reports shall be submitted 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.20, 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 to the Ohio EPA DAPC, Northeast District Office 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." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

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

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northeast District Office unless otherwise specified.

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

3. Reporting of Any Exceedance of a Federally Enforceable Emission Limitation or Control Requirement Resulting from 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) 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 except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with 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 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 based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable; or
- (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant 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, OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77-07(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 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 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.

- 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 Ohio EPA DAPC, Northeast District Office) 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 on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.
 - b. The permittee's current compliance status.
 - c. Whether compliance was continuous or intermittent consistent with A.13.d)(2)a. above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d)(2)a. above.
 - 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 [defined as "Title I modification" in OAC rule 3745-77-01], 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 Ohio EPA DAPC, Northeast District Office 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 Ohio EPA DAPC, Northeast District Office 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 activities and emissions levels” as defined in OAC rule 3745-77-01. 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 Federal Register 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 is subject to 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), 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.

Unless otherwise exempted, no emissions unit identified in this permit that has been 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 operating 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 Requirements Under 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 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 (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 Ohio EPA DAPC, Northeast District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, 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 Requirements Under 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 for State-Only Requirements

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 Ohio EPA DAPC, Northeast District Office 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 Ohio EPA DAPC, Northeast District Office 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 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 potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services

web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Northeast District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

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. The permittee shall comply with the requirements contained within the most recent version of the following regulations that are applicable to the facility:

a) 40 CFR 61, Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene;

40 CFR 61.112	Standards
---------------	-----------

b) 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources);

40 CFR 61.242-1	Standards: General
40 CFR 61.242-2	Standards: Pumps
40 CFR 61.242-3	Standards: Compressors
40 CFR 61.242-4	Standards: Pressure Relief Devices in Gas/Vapor Service
40 CFR 61.242-5	Standards: Sampling Connecting Systems
40 CFR 61.242-6	Standards: Open-Ended Valves or Lines
40 CFR 61.242-7	Standards: Valves
40 CFR 61.242-8	Standards: Pressure Relief Services in Liquid Service and Connectors
40 CFR 61.242-9	Standards: Surge Control Vessels and Bottoms Receivers
40 CFR 61.242-10	Standards: Delay of Repair
40 CFR 61.242-11	Standards: Closed-Vent Systems and Control Devices
40 CFR 61.243-1	Alternative Standards for Valves in VHAP Service - Allowable Percentage of Valves Leaking
40 CFR 61.243-2	Alternative Standards for Valves in VHAP Service - Skip Period Leak Detection and Repair
40 CFR 61.244	Alternative Means of Emission Limitation
40 CFR 61.245	Test Methods and Procedures
40 CFR 61.246	Recordkeeping Requirements

40 CFR 61.247	Reporting Requirements
---------------	------------------------

c) 40 CFR Part 61, Subpart FF - National Emission Standard for Benzene Waste Operations;

40 CFR 61.342	Standards: General
40 CFR 61.343	Standards: Tanks
40 CFR 61.345	Standards: Containers
40 CFR 61.346	Standards: Individual Drain Systems
40 CFR 61.348	Standards: Treatment Processes
40 CFR 61.349	Standards: Closed-Vent Systems and Control Devices
40 CFR 61.350	Standards: Delay of Repair
40 CFR 61.354	Monitoring of Operations
40 CFR 61.355	Test Methods, Procedures, and Compliance Provisions
40 CFR 61.356	Recordkeeping Requirements
40 CFR 61.357	Reporting Requirements

d) 40 CFR Part 63, Subpart DD - NESHAP from Off-Site Waste and Recovery Operations;

40 CFR 63.684	Standards: Off-Site Material Treatment
40 CFR 63.685	Standards: Tanks
40 CFR 63.688	Standards: Containers
40 CFR 63.689	Standards: Transfer Systems
40 CFR 63.690	Standards: Process Vents
40 CFR 63.691	Standards: Equipment Leaks
40 CFR 63.693	Standards: Closed-Vent Systems and Control Devices
40 CFR 63.694	Testing Methods and Procedures
40 CFR 63.695	Inspection and Monitoring Requirements
40 CFR 63.696	Recordkeeping Requirements

40 CFR 63.697	Reporting Requirements
---------------	------------------------

- e) 40 CFR Part 68 - Chemical Accident Prevention Provisions; and
- f) 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

40 CFR 60.112b	Standard for VOC
40 CFR 60.113b	Testing and Procedures
40 CFR 60.114b	Alternative Means of Emission Limitation
40 CFR 60.115b	Reporting and Recordkeeping Requirements
40 CFR 60.116b	Monitoring of Operations

3. The permittee shall comply with the following applicable paragraphs of OAC rule 3745-21-09 when facility operations warrant applicability:

- a) Paragraph L - Storage of petroleum liquids in fixed roof tanks; and
- b) Paragraph DD - Leaks from process units that produce organic chemicals.

4. The following insignificant EUs are located at this facility:

- B001 - Diesel driven generator, PTI 17-104;
- B002 - Fire pump #1, PTI 17-1009;
- B003 - Fire pump #2, PTI 17-1009;
- F003 - Slag & Fly Ash Transfer Systems, PTI 02-18743;
- P002 - External Truck Wash, PTI 17-104;
- T004 - South direct (to N001) tanker unloading bay, PTI 17-104;
- T008 - 7000-gallon Storage Tank 9 (1101), PTI 17-104;
- T009 - 2500-gallon Pump-Out Tank 4, (1102), PTI 17-104;
- T012 - 7000-gallon Storage Tank 8 (1105), PTI 17-104;
- T018 - 20,000-gallon Storage Tank 7 (1201), PTI 17-104;
- T019 - 20,000-gallon Storage Tank 6 (1202), PTI 17-104;

T022 - 20,000-gallon Storage Tank 17 (1205), PTI 17-104;
T023 - 20,000-gallon Storage Tank 16 (1206), PTI 17-104;
T024 - 20,000-gallon Storage Tank 15 (1207), PTI 17-104;
T027 - 20,000-gallon Storage Tank 14 (1210), PTI 17-104;
T028 - 20,000-gallon Storage Tank 11 (1211), PTI 17-104;
T029 - 20,000-gallon Storage Tank 10 (1212), PTI 17-104;
T032 - 20,000-gallon Storage Tank 13 (1215), PTI 17-104;
T033 - 20,000-gallon Storage Tank 12 (1216), PTI 17-104;
T036 - 2500-gallon Pump-Out Tank 1 (1231), PTI 17-104;
T037 - 2500-gallon Pump-Out Tank 2 (1232), PTI 17-104;
T038 - 2500-gallon Pump-Out Tank 3 (1233), PTI 02-16110;
T042 - 20,000-gallon Storage Tank 5 (1301), PTI 17-104;
T043 - 10,000-gallon Storage Tank 2 (1302), PTI 17-104;
T044 - 20,000-gallon Storage Tank 4 (1303), PTI 17-104;
T045 - 700-gallon Pump-Out Tank 6 (1304), PTI 17-104;
T048 - 20,000-gallon Storage Tank 1 (1220), PTI 17-104;
T053 - 2000-gallon Storage Tank 18 (1380), PTI 17-104;
T060 - 2000-gallon Storage Tank 3 (1385), PTI 17-104; and
T062 - 300-gallon Pump-Out Tank 5 (00F11), PTI 17-104.

Each insignificant EU at this facility must comply with all State and Federal regulations, as well as any emission limitations and/or control requirements contained with the identified PTI for the EU. Insignificant EUs listed above that are not subject to specific PTI requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

C. EU Terms and Conditions

1. B006, GAS FIRED AUXILIARY BOILER

Operations, Property and/or Equipment Description:

NG-fired, Zurn Model 6M, 30.26 million Btu/hour, auxiliary boiler. The auxiliary boiler is utilized only when the incinerator (N001) is offline or does not provide adequate freeze protection.

a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (PTI 02-18743, modification issued 10/9/07)	NO _x emissions shall not exceed 3.09 lbs/hr and 13.52 TPY. CO emissions shall not exceed 2.59 lbs/hr and 11.36 TPY.
b.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10	PE shall not exceed 0.020 lb/MMBtu of actual heat input and 0.61 lb/hr.
d.	40 CFR Part 60, Subpart Dc	See section b)(2)a.
e.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-63.7575)	See b)(2)c., d)(3) and e)(2)

(2) Additional Terms and Conditions

- a. So long as only NG fuel is burned, this EU is not subject to the emission limitations listed in 40 CFR Part 60, Subpart Dc.
- b. Because this EU is fired only with NG, there is no applicable emission limitation from OAC Chapter 3745-18.
- c. This EU meets the definition of an existing boiler or process heater with a heat capacity of greater than 10 MMBtu per hour; therefore, the following requirements found in 40 CFR Part 63, Subpart DDDDD are applicable:

Work Practice Standards	63.7500(a)(3), (f) and Table 3
-------------------------	--------------------------------

General Compliance Requirements	63.7505(a), 63.7515(d), 63.7540(a)(10) and (a)(13), 63.7565 and Table 10
---------------------------------	--

c) Operational Restrictions

- (1) The permittee shall burn only NG as fuel in this EU.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-18743]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain a record of the dates and times that the auxiliary boiler was in use or tested, and the total hours of operation per year.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (2) For each day during which the permittee burns a fuel other than NG, the permittee shall maintain a record of the type and quantity of fuel burned in this EU.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (3) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart DDDDD, including the following sections:

Record Keeping Requirements	63.7530(e), (f), 63.7555(a),(i), (j) 63.7560(a), (b) and (c)
-----------------------------	---

[Authority for term: 40 CFR Part 63, Subpart DDDDD and OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify the burning of any fuel other than NG in this EU. Any such deviations shall be reported to the OEPA Northeast District Office within 30 days of the permittee becoming aware of them.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (2) The permittee shall comply with the applicable monitoring, record keeping, and reporting requirements under 40 CFR Part 63, Subpart DDDDD, including the following sections:

Reporting Requirements	63.7530(e), (f), 63.7545(a), (f), (h), 63.7550(a), (b), (c) and (h)
------------------------	---

[Authority for term: 40 CFR Part 63, Subpart DDDDD and OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

NO_x emissions shall not exceed 3.09 lbs/hr and 13.52 TPY.

Applicable Compliance Method:

Compliance may be determined by the following equation:

$$E = (R \times EF \times H) / 1,000,000$$

where:

E = Emissions in lbs/hr

R = Rating capacity of auxiliary boiler, reported as 30.26 MMBtu/hr

EF = Emission factor for NO_x is 100 lbs/mmft³, taken from AP-42 (7/98), Section 1.4, Table 1.4-1.

H = Heat content of NG, in ft³/MMBtu

If required, the hourly NO_x emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

The annual emission limit shall be determined by multiplying the hourly emission rate, in lbs/hr, by the number of hours of operation per year, as recorded in section d)(1) of these terms and conditions, and ton/2,000 lbs.

b. Emission Limitation:

CO emissions shall not exceed 2.59 lbs/hr and 11.36 TPY.

Applicable Compliance Method:

Compliance may be determined by the following equation:

$$E = (R \times EF \times H) / 1,000,000$$

where:

E = Emissions in lbs/hr

R = Rating capacity of auxiliary boiler, reported as 30.26 MMBtu/hr

EF = Emission factor for CO is 84 lbs/mmft³, taken from AP-42 (7/98), Section 1.4, Table 1.4-1.

H = Heat content of NG, in ft³/MMBtu

If required, the hourly CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

The annual emission limit shall be determined by multiplying the hourly emission rate, in lbs/hr, by the number of hours of operation per year, as recorded in section d)(1) of these terms and conditions, and ton/2,000 lbs.

c. Emission Limitation:

PE shall not exceed 0.020 lb/MMBtu, and 0.61 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the lb/MMBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 5.

d. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

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

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

g) Miscellaneous Requirements

(1) None.

2. F001, PAVED AND UNPAVED ROADWAYS AND PARKING AREAS

Operations, Property and/or Equipment Description:

Paved and unpaved roadways and parking areas.

- a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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(F) (PTI 02-18743, modification issued 10/9/07)	See section b)(2)a.
b.	OAC rule 3745-17-07(B)(4)	There shall be no visible PE from the paved roadways and parking areas except for a period of time not to exceed 6 minutes during any 60-minute period.
c.	OAC rule 3745-17-07(B)(5)	There shall be no visible PE from the unpaved roadways and parking areas except for a period of time not to exceed 13 minutes during any 60-minute period.
d.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonable available control measures that are sufficient to minimize or eliminate VE of fugitive dust. See sections b)(2)b. through b)(2)e.

- (2) Additional Terms and Conditions
 - a. The permittee has agreed to the following voluntary restriction for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3):
 - i. To adequately vacuum sweep the paved roadway and parking area at a sufficient frequency to ensure controlled potential PE are less than 10.0 TPY.
 - b. The permittee shall employ reasonably available control measures on all paved and unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and

parking areas by vacuum sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

- c. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved and unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- d. The permittee shall promptly remove, in such a manner as to minimize or prevent re-suspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

c) Operational Restrictions

- (1) The permittee shall ensure that the calculated controlled, fugitive PE are kept less than 10 TPY. At the time of this permit issuance, the paved and unpaved roadways and parking areas emit a controlled fugitive PE of 3.29 TPY using a maximum of 12,321.88 miles traveled on the paved roadway and a maximum of 193.03 miles traveled on the unpaved roadway.

[Authority for term: OAC rule 3845-77-07(A)(1) and PTI 02-18743]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform inspections of each paved and unpaved roadway segment and paved and unpaved parking area daily for one calendar quarter. If no VE are noted for each daily inspection during that calendar quarter, then the frequency may become weekly for each paved roadway segment and paved parking area. If VE are noted during a weekly inspection, the permittee shall revert to daily inspections and perform daily inspections until no VE are documented for an entire calendar quarter, at which time the permittee may again perform inspections on a weekly basis.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in section d)(3)d shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (4) The permittee shall maintain an annual record of the estimated total number of vehicle miles traveled on the paved roadways and parking areas, and also on the unpaved roadways and parking areas.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

There shall be no visible PE from the paved roadways and parking areas except for a period of time not to exceed 6 minutes during any 60-minute period.

Applicable Compliance Method:

If required, compliance with the VE limitation for the paved roadways and paved parking areas shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

b. Emissions Limitation:

There shall be no visible PE from the unpaved roadways and parking areas except for a period of time not to exceed 13 minutes during any 60-minute period.

Applicable Compliance Method:

If required, compliance with the VE limitation for the unpaved roadways and parking areas shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

g) Miscellaneous Requirements

(1) None.

3. F002, LOOSE SOLID WASTE RECEIVING AND HANDLING OPERATIONS

Operations, Property and/or Equipment Description:

Loose solid waste receiving and handling operations Pits 1 and 2 of the Feed Building. Emissions from the loose solid waste receiving and handling operations shall vent through a closed-vent system (vapor recovery system) to the incinerator (N001) and/or the carbon adsorption system.

- a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (P0108374)	Controlled OC shall not exceed 82.55 lbs/hr and 361.57 TPY. Fugitive OC shall not exceed 118.11 TPY. See sections b)(2)a. through b)(2)m.
b.	OAC rule 3745-17-07(B)	VE of fugitive dust shall not exceed 20% opacity as a 3-minute average. See section b)(2)c.
c.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate VE of fugitive dust. See sections b)(2)c. and b)(2)f.
d.	40 CFR Part 61, Subpart FF	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)m.
e.	40 CFR Part 63, Subpart DD	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See section b)(2)m.

(2) Additional Terms and Conditions

- a. The loose solid waste receiving, and handling operations shall be contained in an enclosure meeting the criteria for a Permanent Total Enclosure specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" in 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure.
- b. The overhead doors to this EU shall remain closed at all times when waste is contained within the enclosure except for the following events: 1) waste materials are being placed inside; 2) waste materials inside the enclosure need to be rearranged and the doors need to be open to allow for equipment maneuverability; 3) an emergency such as a fire necessitates the doors to be open for effective control; 4) needed maintenance activities cannot be performed unless the doors are open; and 5) needed brief visual assessment of pit capacity. At no time shall the doors be open when waste is actively being handled to be fed to the incinerator.
- c. This EU, as a permanent total enclosure, should not allow any fugitive emissions of any pollutant from exiting from the egress points when the overhead doors are closed. However, when the overhead doors are opened for the activities listed in section b)(2)b, any outward flow of air may contain fugitive OC and fugitive PE.
- d. Emissions from the loose solid waste receiving and handling operations shall vent through a closed-vent system (vapor recovery system) to the incinerator (EU N001) and/or to the carbon adsorption system.
- e. The vapor recovery system shall be in operation when waste is contained within the enclosure. The incinerator and/or the carbon adsorption system, as control devices, shall also be in operation when waste is contained and processed within the enclosure.
- f. The vapor recovery system upstream from the ventilation header blower shall be operated at a pressure below atmospheric pressure so that there is adequate suction, or inward flow, into the vapor recovery system. The draft shall have sufficient volume and velocity to minimize or eliminate fugitive dust escaping the building when the overhead doors need to be opened.
- g. The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.
- h. The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

- i. The carbon adsorption system shall consist of two or more trains of a primary and a secondary carbon box operated in series. The trains shall be arranged in parallel. All boxes shall be the same size and have a maximum design flow rate of no less than 10,000 cfm. The carbon adsorption system shall be installed, operated and maintained in accordance with the "Von Roll's Routine Maintenance Procedure for Vapor Recovery Management" initially dated October 27, 2006, (also referred to as the "Routine Maintenance Procedure") and any updated, approved plan thereafter.
- j. The existing carbon within the carbon adsorption system shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. Carbon breakthrough will be determined by a reading of 50 ppm as a 60-minute rolling average from the Total Hydrocarbon (THC) Continuous Emissions Monitor (CEM) located between the first and second carbon bed in each train. This CEM shall be referred to as an Inter-Box CEM. The permittee is permitted to replace the carbon more frequently, i.e., before breakthrough is indicated, if the permittee determines that the carbon within any box is not effectively adsorbing volatile OC, including benzene.
- k. The vapor recovery system, or closed-vent system, shall comply with the following requirements:
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 - iii. One or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.
- l. The permittee shall control equipment leaks from each equipment component of this EU in accordance with sections 61.242 through 61.247 of 40 CFR Part 61, Subpart V - National Emission Standards for Equipment Leaks.
- m. When this EU is subject to the requirements of 40 CFR Part 61, Subpart FF (National Emissions Standards for Benzene Waste Operation), the permittee is exempt from Section 63.685 (standards for tanks) of 40 CFR Part 63, Subpart DD. Because benzene may be present in the waste handled by this EU at any given time, the requirements contained in both 40 CFR Part 61, Subpart FF and 40 CFR Part 63, Subpart DD serve as a basis for determining the BAT established pursuant to OAC rule 3745-31-05(A)(3).
- n. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous THC monitoring system, designed to ensure continuous valid and representative readings of THC emissions in units of parts per million. The plan

shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous THC monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of parts per million, in accordance with and at the frequencies required per 40 CFR Part 60.

c) Operational Restrictions

- (1) The permittee shall operate a sufficient number of trains in the carbon adsorption system to ensure that the flow rate through each primary carbon box does not exceed the manufacturer's recommended maximum design air flow rate.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (2) When breakthrough within a train of the carbon adsorption system occurs, the permittee shall discontinue the use of that train as soon as possible but not longer than 12 hours after detection of breakthrough. The change-out must be completed within 48 hours after the use of the train that has been discontinued. The change-out will be performed such that the secondary carbon box becomes the primary box and a new carbon box is installed as the secondary box.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (3) If an Inter-Box CEMS reading is equal to or greater than 50 ppm on a 60-minute rolling average within 15 days after a change-out, the permittee is not required to initiate and complete a new change-out of the primary box pursuant to the Routine Maintenance Procedure. Instead, as expeditiously as possible, the permittee shall initiate and complete an investigation of the cause of the elevated Inter-Box CEMS reading to determine if the carbon within the primary box actually is spent or otherwise not functional. If the permittee determines the carbon within the primary box is spent or otherwise not functional, the permittee shall immediately initiate and complete a change-out of the primary box pursuant to the Routine Maintenance Procedure. If the permittee determines that the elevated Inter-Box CEMS reading is not caused by spent or non-functional carbon, the permittee shall implement corrective actions, if any to eliminate the cause(s) of the elevated readings. If within 5 days after the elevated Inter-Box CEMS reading, the permittee cannot determine the cause of the elevated reading, the permittee immediately shall initiate and complete a change-out of the primary box pursuant to the Routine Maintenance Procedure.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (4) The permittee shall maintain on-site a sufficient supply of fresh carbon or a spare carbon box containing fresh carbon to enable a change-out procedure to be performed in a timely manner.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform the verification procedure for the enclosure as specified in section 5.0 of Procedure T annually.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (2) The permittee shall perform daily inspections of the enclosure of this EU and of the overhead doors, to ensure that they are in good operating condition. The permittee shall look for cracks, openings, broken seals or any other condition that would allow outward flow from the EU. If outward flow is discovered, corrective action shall be performed as soon as possible. The permittee shall record inspection findings and corrective action taken in a log.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (3) The permittee shall record the date and duration, in minutes, of each event when the overhead doors are open.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (4) Each time the overhead doors need to be opened, the permittee shall perform a check for any visible PE. The presence or absence of any visible fugitive emissions and the date shall be noted in an operations log. If VE are observed, the permittee shall also note the following in the operations log:

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any VE incident; and
- e. any corrective actions taken to minimize or eliminate the VE.

If VE are present, a VE incident has occurred. The observer does not have to document the exact start and end times for the VE incident under item (d) above or continue the check until the incident has ended. The observer may indicate that the VE incident was continuous during the observation period. With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the VE were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the EU continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (5) The permittee shall install, calibrate, operate and maintain equipment to continuously monitor and record total hydrocarbons (THC), in units of parts per million, between the first and second carbon bed of each train of the carbon adsorption system (Inter-Box CEMS) for the purpose of determining breakthrough. A THC monitor and recorder shall also be on the exhaust vent stream.

- a. A statement of approval of the continuous THC monitoring system shall be maintained on site and shall consist of a letter from the OEPA detailing the results of an Agency review of the performance specifications tests and a statement by the Agency that the system is considered approved for use in accordance with the requirements of 40 CFR Part 60, Appendix B, performance Specification 8A - Specifications and Test Procedures for Total Hydrocarbon Continuous Monitoring Systems in Stationary Sources. Proof of approval shall be made available to the Director (OEPA Northeast District Ohio) upon request.
- b. Each continuous monitoring system consists of all the equipment used to acquire and record data in parts per million, and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- c. The permittee shall operate and maintain equipment to continuously monitor and record THC emissions in units of parts per million. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
- d. The permittee shall maintain records of data obtained by the continuous THC monitoring system including, but not limited to:
 - i. emissions of THCs in parts per million on an instantaneous (one-minute) basis;
 - ii. emissions of THCs in parts per million on a 60-minute rolling average;
 - iii. results of quarterly cylinder gas audits;
 - iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - v. results of required relative accuracy test audits (or PS 8A alternative);
 - vi. hours of operation of the EU, continuous THC monitoring system, and carbon adsorption system;
 - vii. the date, time, and hours of operation of the EU without the carbon adsorption system and/or the continuous THC monitoring system;
 - viii. the date, time, and hours of operation of the EU during any malfunction of the control equipment and/or the continuous THC monitoring system; and,
 - ix. the reason (if known) and the corrective actions taken (if any) for each such event in (d.vii) and (d.viii). These records shall be kept at the facility no less than 3 years and be available for inspection upon request by the OEPA.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (6) With respect to each Inter-Box CEMS, the permittee shall comply with Performance Specification 8A, except that the permittee shall:

- a. to the extent that the permittee utilizes two ducts between each primary and each secondary box for pressure control purposes, be permitted to utilize a sample location on only one of the two ducts;
- b. keep the sample probe heated to approximately the same temperature as, or slightly higher than, the temperature inside the duct in which it is inserted;
- c. establish a span value of 200 ppm propane; and
- d. utilize the following three test points for conducting calibration error tests:
 - i. Zero Level: zero to 0.1 ppm;
 - ii. Mid-Level: 40 to 60 ppm;
 - iii. High-Level: 140 to 160 ppm.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (7) On a continuous basis, the permittee shall direct the Inter-Box CEMS data to the facility's control system and shall maintain an alarm that will sound whenever breakthrough between a primary and a secondary carbon box occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (8) During times when a train of the carbon adsorption system is not in use, the permittee shall record "no flow" instead of a THC concentration for the respective Inter-Box CEMS.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (9) The permittee shall maintain the following annual records:

- a. the amount of waste processed within the EU, in TPY;
- b. an approximate, average percent of organic material within the solid waste placed within the EU;
- c. the percent volatilization of the organic material with the highest vapor pressure that was processed within the EU;
- d. the OC emissions (OCE) from the waste, in TPY, calculated by the following equation:

$$\text{OCE} = (\text{Amount of waste processed, TPY}) \times (\% \text{ organics in the waste, as a decimal}) \times (*\text{maximum percent volatilization of organics in waste, as a decimal})$$

*If the actual, maximum percent volatilization of the organics in the waste cannot be ascertained, the permittee shall use 100% or 1.00.

- e. the percent of time, as a decimal, of when the overhead doors were open during the year as calculated by the following equation:

$$\% \text{ of time open, as a decimal} = \text{summation of minutes open, as recorded in section d)(3), divided by 525,600 minutes;}$$

- f. the percent of time, as a decimal, of when the overhead doors were closed during the year as calculated by the following equation:

$$\% \text{ of time closed, as a decimal} = 1 - (\text{result of section d})(9)e)$$

- g. a calculation of the fugitive OC emissions by use of the following equation:

$$E \text{ fugitive (tons OC/year)} = (\text{OCE}) \times (\% \text{ open}) \times (0.10)$$

where:

E fugitive = tons of fugitive OC per year;

OCE = OC emissions from the waste, in TPY, as calculated in section d)(9)d;

% open = the percent of time, as a decimal, of when the overhead doors were open during the year as calculated and recorded in section d)(9)e; and

0.10 = 10% of emissions are assumed to be fugitive emissions when the overhead doors are open. 90% of emissions are assumed to be captured when the overhead doors are open.

- h. a calculation of the captured emissions calculated by the following equation:

$$\text{Cap E} = (\text{OCE})(\% \text{ open})(0.90) + (\text{OCE})(\% \text{ closed})(1.00)$$

where:

Cap E = tons OC captured and vented through vapor recovery to the incinerator and/or carbon adsorption system;

OCE = OC emissions from the waste, in TPY, as calculated in section d)(9)d;

% open = the percent of time, as a decimal, of when the overhead doors were open during the year as calculated and recorded in section d)(9)e;

% closed = the percent of time, as a decimal, of when the overhead doors were closed during the year as calculated and recorded in section d)(9)f;

0.90 = when the doors are open, 90% of the emissions are assumed to be captured; and

1.00 = when the doors are closed, 100% of the emissions are assumed to be captured.

- i. calculation of the controlled OC emissions, as calculated by the following equation:

$$E \text{ (tons OC/year)} = [(\text{Cap E} \times I) \times (1 - 0.9999)] + [(\text{Cap E} \times C) \times (1 - 0.95)]$$

where:

E = tons of controlled OC per year;

Cap E = tons of captured OC emissions as calculated and recorded in section d)(9)h;

I = Approximate percent of emissions, as a decimal, within the vapor recovery system that were vented to the incinerator; and

C = Approximate percent of emissions, as a decimal, within the vapor recovery system that were vented to the carbon adsorption system.

I + C must equal 100% or 1.00. Typical operation at the time of permit issuance is 85-90% of emissions to the incinerator and 10-15% of emissions to the carbon adsorption system. The annual OC limit of 361.57 TPY was calculated using worst case scenario of I=0 and C=1.00.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (10) The permittee shall perform quarterly, visual inspections of the vapor recovery system and control devices (incinerator and carbon adsorption system). The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connection.

If visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the vapor recovery system and control device shall be made as soon as practicable but no later than 5 calendar days after detection.

Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. Exception for delay of repair would be allowed per 40 CFR 61.350.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (11) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the OC emissions from the exhaust vent stream from the carbon adsorption system. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (12) The permittee shall maintain, and retain for the life of each control device, the following records:

a. a statement signed and dated by the permittee certifying that the vapor recovery system and control device (incinerator and carbon adsorption system) are designed to operate at the documented performance level when this EU is operating at the highest load or capacity. The document will therefore include the following:

i. a statement certifying that the vapor recovery system is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, is designed so that all gauging and sampling devices be gas-tight except when gauging or sampling is taking place, and that any rupture discs remain closed during normal operation.

- ii. a statement certifying that the incinerator can achieve a 99.99% destruction efficiency for OC when this EU is operating at its highest load or capacity; and
 - iii. a statement certifying that the carbon adsorption system can achieve a 95% control efficiency for OC when this EU is operating at its highest load or capacity.
- b. the design analysis showing control device performance. The design analysis shall include specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering tests.

For the incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

For the carbon adsorption system, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream OC concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (13) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the vapor recovery system upstream from the ventilation header blower. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (14) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device to continuously monitor the temperature in the combustion chamber of the incinerator, as a control device for this EU. The temperature monitoring device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degree Celsius, or plus or minus 0.5 degree Celsius, whichever is greater. This record shall be reviewed according to the terms and conditions for EU N001.

[Authority for term: OAC rule 3745-77-07 (C)(1) and P0108374]

- (15) The permittee shall maintain records that contain the following information:
- a. a record of any time when the vapor recovery system was not in operation when waste was contained and/or processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was contained and/or

processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;

- c. any record indicating that the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action, if any; and
- d. any record indicating detectable emissions from the vapor recovery system and/or any equipment component of this EU. This record may be included in the monthly Leak Detection and Repair Program report.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. any time when the vapor recovery system was not in operation when waste was processed within this EU;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU;
 - c. any record indicating the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU;
 - d. any record indicating detectable emissions from the vapor recovery system and/or any equipment component of this EU;
 - e. an identification of the days when cracks, openings, broken seals or any other condition allowing outward flow from the EU were discovered by the daily inspection of the overhead doors and/or enclosure and a description of the corrective action, and when it was performed, would be included in the report; and
 - f. an identification of the days during which any VE of fugitive dust were observed when the overhead doors were opened and a description of any corrective actions taken, if any, to minimize or eliminate the VE.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Controlled OC shall not exceed 82.55 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by the record keeping and calculation in section d). The lb/hr limit shall be calculated by multiplying the annual controlled OC emissions by 2,000 lbs-yr/8,760 hrs-ton.

b. Emission Limitation:

Controlled OC shall not exceed 361.57 TPY.

Applicable Compliance Method:

Compliance shall be determined by the record keeping and calculation in section d).

c. Emission Limitation:

Fugitive OC shall not exceed 118.11 TPY.

Applicable Compliance Method:

Compliance shall be determined by the record keeping and calculation in section d).

d. Emission Limitation:

VE of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through VE observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

g) Miscellaneous Requirements

(1) None.

4. F004, PNEUMATIC LIME & ACTIVATED CARBON HANDLING SYSTEM

Operations, Property and/or Equipment Description:

Bulk lime is pneumatically transferred to the storage silo. The pneumatic system shall be adequately enclosed so as to minimize VE of fugitive dust. The bulk lime silo is vented to a fabric filter baghouse sufficient to minimize VE of fugitive dust. Carbon is transferred to the ECIS system via a closed system to minimize VE of fugitive dust.

- a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (PTI 02-18743, modification issued 10/9/07)	PE from the lime silo stack shall not exceed 0.32 pound per hour and 1.4 TPY. The visible PE from the lime silo stack shall not exceed 5% opacity as a 6-minute average. VE of fugitive dust shall not exceed 5% opacity as a 3-minute average. See section b)(2)a.
b.	OAC rule 3745-17-07(A)	The visible PE limitation specified by this rule is less stringent than the visible PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)	The VE of fugitive dust limitation specified by this rule is less stringent than the VE of fugitive dust limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonable available control measures that are sufficient to minimize or eliminate VE of fugitive dust. See section b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-11	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The fabric filter achieving an outlet grain loading rate of 0.030 grain per dry standard cubic foot shall be in operation on the lime silo stack while this EU is in operation.
- b. The permittee shall maintain the following control measures:
 - i. The bulk lime shall be pneumatically transferred to the storage silo. The pneumatic system shall be adequately enclosed so as to minimize VE of fugitive dust.
 - ii. The bulk lime storage silo shall be vented to the fabric filter. The enclosure shall be sufficient to minimize VE of fugitive dust.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate and maintain equipment to monitor the pressure drop in inches of water across the baghouse while the EU is in operation. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall record the pressure drop in inches of water across the baghouse on a weekly basis.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications. The permittee has reported this range to be 0.5 to 8.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (2) The permittee shall perform daily inspections of the pneumatic lime and activated carbon handling system to ensure that all enclosures are in good operating condition.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (3) The permittee shall perform daily checks, when the EU is in operation and when weather conditions allow, for any visible PE from the lime silo stack and for any fugitive VE from the egress points for one calendar quarter. The presence or absence of any VE shall be noted in an operations log. If VE are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;

- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any VE incident; and
- e. any corrective actions taken to eliminate the VE.

If no VE are noted for each daily inspection during that calendar quarter, then the frequency may become weekly. If VE are noted during a weekly inspection, the permittee shall revert to daily inspections and perform daily inspections until no VE are documented for an entire calendar quarter, at which time the permittee may again perform inspections on a weekly basis.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (4) The permittee shall record the amount of lime and carbon, in tons, handled each year. The permittee shall also calculate the fugitive PE from this EU by using the following equation:

$$E = (EF \times N1 \times W1) \times (1 \text{ ton}/2,000 \text{ lbs}) + (EF \times N2 \times W2) \times (1 \text{ ton}/2,000 \text{ lbs})$$

where:

E = PE in TPY;

EF = emission factor of 0.003 lb PE/ton, taken from AP-42 11.19.2-2 - Crushed stone processing operations - conveyor transfer points (8/04);

N1 = number of transfer points for lime handling is 7;

W1 = amount of lime, in tons, processed each year as recorded in section d)(4);

N2 = number of transfer points for carbon is 13; and

W2 = amount of carbon, in tons, processed each year as recorded in section d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. the period of time when the pressure drop across the baghouse on the lime silo stack was outside the range specified in section d)(1);
 - b. any day during which the enclosures were not maintained in good operating condition and the corrective actions taken; and
 - c. each day or week during which any VE were observed and the corrective actions taken.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from the lime silo stack shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through VE observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

VE of fugitive dust shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through VE observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation:

PE from the lime silo stack shall not exceed 0.32 lb/hour.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

d. Emission Limitation:

PE from the lime silo stack shall not exceed 1.4 TPY.

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly rate, in lbs/hr, by (8,760 hrs/yr)(ton/2,000 lbs).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

g) Miscellaneous Requirements

(1) None.

5. N001, HAZARDOUS WASTE INCINERATOR

Operations, Property and/or Equipment Description:

Hazardous waste incinerator (97.8 MMBtu/hour), equipped with a spray dryer, an electrostatic precipitator and a scrubber

a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (P0108374)	<p>Sulfur dioxide emissions from the stack shall not exceed 11.34 pounds per hour and 49.69 TPY.</p> <p>NOx emissions from the stack shall not exceed 28.36 pounds per hour and 124.23 TPY.</p> <p>Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.</p> <p>There shall be no visible PE of fugitive dust.</p> <p>Compliance with OAC rule 3745-31-05(A)(3) includes compliance with 40 CFR Part 61, Subpart C, 40 CFR Part 63, Subpart EEE and OAC rule 3745-17-07(A).</p> <p>See sections b)(2)a. through b)(2)l.</p>
b.	40 CFR Part 61, Subpart C (NESHAP for Beryllium)	Beryllium emissions shall not exceed 10 grams per 24-hour period.
c.	40 CFR Part 61, Subpart E (NESHAP for Mercury)	The emission limitation specified by this federal regulation is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 61, Subpart FF (NESHAP for Benzene Waste Operations)	The requirements of this federal regulation are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 63, Subpart EEE	The requirements of this federal regulation are equivalent to the requirements established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-17-07(A)	The visible PE limitation specified by this rule is equivalent to the visible PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-17-07(B)	The visible PE limitation for fugitive dust specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	OAC rule 3745-17-08(B)	The requirements specified by this rule are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	OAC rule 3745-17-09(B)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
j.	OAC rule 3745-18-06(E)(2)	The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. Dioxin and furan emissions shall not exceed 0.20 ng TEQ/dscm, corrected to 7% oxygen.
- b. Mercury emissions shall not exceed of 130 ug/dscm corrected to 7 percent oxygen.
- c. Lead and cadmium emissions, combined, shall not exceed 230 ug/dscm corrected to 7 percent oxygen.
- d. Arsenic, beryllium, and chromium emissions, combined, shall not exceed 92 ug/dscm corrected to 7 percent oxygen.
- e. Beryllium emissions not exceed 10 grams per 24-hour period.
- f. CO emissions shall not exceed 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), on a dry basis and corrected to 7 percent oxygen and 95.26 TPY;

or

Hydrocarbons emissions shall not exceed 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), on a dry basis, corrected to 7 percent oxygen, reported as propane, and 15.00 TPY.

- g. Hydrochloric acid and chlorine gas emissions, combined, shall not exceed 32 parts per million by volume, expressed as chloride equivalent, on a dry basis and corrected to 7 percent oxygen and 116.85 TPY.
- h. PE shall not exceed 0.013 grain/dscf corrected to 7 percent oxygen and 24.74 TPY.
- i. This EU shall achieve a destruction and removal efficiency (DRE) of 99.99% for each selected principle organic hazardous constituent (POHC).
- j. This EU is not permitted to burn and shall not burn the following:
 - i. dioxin-listed hazardous wastes, including waste codes of F020, F021, F022, F023, F026, or F027; and
 - ii. any material containing asbestos.
- k. Should 40 CFR Part 63, Subpart EEE be revised such that the emissions limitations change for the pollutants mentioned in sections b)(2)a through b)(2)i above, then the permittee shall comply with the most current, revised standard according to the requirements of the subpart.
- l. Per 40 CFR 63.1206(b)(1), the emission standards and operating requirements of 40 CFR Part 63, Subpart EEE apply at all times except during 1) periods of startup, shutdown and malfunction; and 2) when hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and the permittee has documented in the operating record compliance with all otherwise applicable requirements and standards promulgated under authority of section 112 or 129 of the Clean Air Act in lieu of the emission standards under 40 CFR Part 63, Subpart EEE.

c) Operational Restrictions

- (1) The permittee shall comply with all applicable requirements contained in the most recent version of 40 CFR 63.1206.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (2) All emissions shall be vented to the control equipment (spray dryer, electrostatic precipitator, 4-stage wet scrubber and carbon injection system) associated with this EU. The permittee shall maintain the control equipment in accordance with the manufacturer's operating manuals, with any adjustments or modifications deemed necessary by the permittee, and as required by the standards promulgated in 40 CFR Part 63, Subpart EEE.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (3) The permittee must prepare and at all times operate according to an Operation and Maintenance Plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (4) The incinerator, including all associated equipment and grounds, shall be designed, operated and maintained to prevent the emissions of objectionable odors.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (5) The permittee shall control combustion system leaks by the following:

- a. keeping the maximum combustion zone pressure lower than ambient pressure, which is maintained by the induced draft (ID) fan; and
- b. pressurizing the inlet and outlet end shrouds to approximately 0.2 inch of water column (or any revised pressure measure acceptable to the OEPA) which provides an alternative means of control of combustion system leaks that is equivalent to maintaining the maximum pressure in the combustion zone below the ambient pressure. This control method is necessary for when the combustion of certain hazardous waste produces a positive pressure spike within the kiln and/or secondary combustion chamber.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (6) The permittee shall operate the hazardous waste combustor with a functioning automatic waste feed cutoff (AWFCO) system that immediately and automatically cuts off the hazardous waste feed to the kiln and which shall be activated and operated as required in 40 CFR 63.1206(c)(3), as follows:

- a. when any Operating Parameter Limit (OPL) established during the most recent Comprehensive Performance Test (CPT) and reported in the subsequent Notice of Compliance (NOC) is exceeded;
- b. when any emission standard monitored by a Continuous Emission Monitoring System (CEM) is exceeded;
- c. the pressure in the secondary combustion chamber is greater than zero inches of water column for more than 10 seconds;
- d. the pressure in the secondary combustion chamber is greater than the pressure in the inlet or outlet end shroud at any time;
- e. the pressure in the secondary combustion chamber is greater than ambient pressure for more than 2 seconds during operating time when the pressurizing equipment for either shroud has failed;
- f. when the span value of any Continuous Monitoring System, e.g., temperature monitoring devices, pressure transducers, flow meters, (except a CEM), is met or exceeded;

- g. upon malfunction of a CMS that monitors an OPL established during the most recent CPT and reported in the subsequent NOC; or
- h. when any component of the AWFCO system fails.

The AWFCO and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate; in which case, the permittee shall conduct operability testing at least monthly.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (7) Start-up of the incinerator shall begin with the heating of the cold combustion zone with NG, distillate fuel oil, or waste materials which have been classified as hazardous solely due to their ignitability. Alternate fuels may not be used unless approved by the OEPA.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (8) Waste material shall not be fed to the kiln until compliance with all OPLs, established during the most recent CPT and reported in the subsequent NOC, is achieved.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (9) The permittee shall comply with all state and federal laws and regulations including, but not limited to, the Toxic Substances Control Act of 1979. No polychlorinated biphenyls (PCB's) in excess of 50 ppm shall be incinerated unless the permittee obtains an OEPA Permit-to-Install. No high-level or low-level radioactive wastes, herbicides, pesticides, rodenticides, insecticides, or other materials shall be incinerated in violation of state and federal laws and regulations.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (10) The permittee shall comply with all requirements contained in the most recent Ohio Hazardous Waste Facility Installation and Operation Permit and in all modifications.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (11) When the Emergency Diesel Generator (insignificant EU B001) is in operation, providing emergency power to the incinerator or APC equipment, feeding of waste materials into the incinerator shall be suspended.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (12) The Electrostatic Precipitator shall be operated under the conditions established during the most recent CPT and reported in the subsequent NOC. These parameters shall be regulated by an automatic voltage controller (AVC) such as a Digicon Optipulse Controller #PN0803 manufactured by Environmental Elements or an AVC of the same type and specifications.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (13) Pursuant to 40 CFR 63.1206(c)(1), the permittee shall establish and document limits and averaging times for the operating parameters listed in Appendix A to this permit.

- (14) The permittee shall operate within all OPLs and operating requirements established during the most recent CPT and reported in the subsequent NOC. These operating parameters are operative upon postmark of the NOC. To the extent OPLs established in the most recent CPT, as reported in a NOC, conflict with OPLs listed in Appendix A (at the end of this permit), the OPLs in the most recent NOC shall take precedent.

The permittee shall submit an application for a minor permit modification to update Appendix A within 30 days of the most recent postmarked NOC (or within another timeframe as directed by OEPA).

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall comply with all applicable monitoring requirements contained in the most recent version of 40 CFR 63.1209.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (2) The permittee shall comply with all applicable record keeping requirements listed in the most recent version of 40 CFR 63.1211. These requirements include, but may not be limited to, the following rule citations:

40 CFR 63.1200, 63.10(b) & (c)	Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems, and copies of all notifications, reports, plans, and other documents submitted to the OEPA.
40 CFR 63.1206(b)(1)(ii)	If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, the permittee must document in the operating record compliance with those requirements.
40 CFR 63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
40 CFR 63.1206(b)(11)	Calculation of hazardous waste residence time
40 CFR 63.1206(c)(2)	Startup, shutdown, and malfunction plan
40 CFR 63.1206(c)(2)(v)(A)	Documentation of investigation and evaluation of excessive exceedances during malfunctions

40 CFR 63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit
40 CFR 63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing
40 CFR 63.1206(c)(5)(ii)	Method used for control of combustion leaks
40 CFR 63.1206(c)(6)	Operator training and certification program
40 CFR 63.1206(c)(7)(i)(D)	Operation and maintenance Plan
40 CFR 63.1209(c)(2)	Feedstream Analysis Plan
40 CFR 63.1209(k)(6)(iii)	Documentation that a substitute activated carbon will provide the same level of control as the original material
40 CFR 63.1209(q)	Documentation of changes in modes of operation

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

(3) Feed Stream Analysis Plan

See Appendix B – Located at the end of this permit.

The Feed Stream Analysis Plan (FSAP) shall obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits for mercury, semi-volatile metals, low volatile metals, total chlorine (organic and inorganic) and chloride, and at a minimum shall contain:

- a. the parameters for which each feedstream will be analyzed;
- b. documentation as to whether the analysis for each waste stream shall be performed through sampling and analysis or from analytical information;
- c. documentation as to how the analysis shall document compliance with the applicable feedrate limits;
- d. the test methods used to obtain the analysis;
- e. the sampling method used to obtain a representative sample of each feedstream analyzed;
- f. the frequency with which the permittee shall review or repeat the analysis of the feedstream;
- g. documentation for determining the mass or volume flowrate of each feedstream using a continuous monitoring system (if the flowrate of the feedstream is determined by

volume, the density of the feedstream must also be determined and documented, unless the constituent concentration is in units of weight per unit volume); and

- h. procedures for calculating and maintaining records of the mass feedrate of mercury, semivolatile metals, low volatile metals, total chlorine (organic and inorganic), and chloride, as the twelve-hour rolling average maximum theoretical emission concentration (MTEC).

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

- (4) The permittee shall use either a CO or hydrocarbon (THC) continuous emissions monitoring system (CEMS) to demonstrate and monitor compliance with the CO or THC standard. The permittee shall also use an oxygen CEMS to continuously correct the CO or THC level to 7 percent oxygen.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (5) The permittee shall also install, calibrate, operate and maintain equipment to continuously monitor and record opacity, sulfur dioxide, NOx, and gas flow rate.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (6) The continuous emissions (or opacity) monitoring systems have the following requirements:

- a. A statement of certification of each continuous emissions (or opacity) monitoring system shall be maintained on site and shall consist of a letter from the OEPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the applicable requirements of 40 CFR Part 60, Appendix A or B.

Appendix B: Performance Specification 4B for CO and oxygen, Performance Specification 8A for hydrocarbons, Performance Specification 1 for opacity, Performance Specification 2 for sulfur dioxide and NOx, and Performance Specification 6 for each "mass emission rate" monitoring system.

Proof of certification shall be made available to the Director (OEPA Northeast District Office) upon request.

Each continuous emissions (or opacity) monitoring system consists of all the equipment used to acquire and record data in units of all applicable standards, and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- b. The permittee shall operate and maintain equipment to continuously monitor and record the pollutant emissions, in units applicable to the standards. Such continuous emissions (or opacity) monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- c. The permittee shall maintain records of all data obtained by each continuous emissions (or opacity) monitoring systems including, but not limited to:
- i. emissions in units applicable to the standards on an instantaneous (one-minute basis);
 - ii. emissions for the appropriate averaging period;
 - iii. results of quarterly cylinder gas audits;
 - iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - v. results of required relative accuracy test audits (or PS 8A alternative);
 - vi. hours of operation of the EU and continuous emissions (or opacity) monitoring system;
 - vii. the date, time, and hours of operation of the EU without the continuous emissions (or opacity) monitoring system;
 - viii. the date, time, and hours of operation of the EU during any malfunction of the continuous emissions (or opacity) monitoring system; and
 - ix. the reason (if known) and the corrective actions taken (if any) for each such event in (c.vii) and (c.viii).

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (7) The permittee shall install, calibrate, operate and maintain other continuous monitoring systems (CMS), e.g., temperature monitoring devices, pressure transducers, flow meters, to document compliance with all applicable OPL's established during the most recent CPT and reported in the subsequent NOC.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (8) The permittee shall install, calibrate, operate and maintain equipment to monitor the OPL's, pertaining to the control of combustion system leaks, as specified in paragraph 5 under the Operational Restrictions section of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (9) The permittee shall record all periods of time when compliance with any OPL was not achieved.

[Authority for term: OAC rule 3745-77-70(C)(1) and P0108374]

- (10) The permittee shall calculate the hazardous waste residence time for each waste fed to the incinerator using the equation provided in the CPT test plan under 40 CFR 63.1207(f).

[Authority for term: OAC rule 3745-77-70(C)(1) and P0108374]

- (11) The permittee shall develop a plan for the routine sampling and laboratory analysis of incoming wastes for the purpose of preventing polychlorinated biphenyls (PCBs), in excess of 50 ppm, from being incinerated in the kiln and the secondary combustion chamber. Such plan shall include as a minimum:
- a. a copy of the standard supplier contract which prohibits the delivery of PCBs in excess of 50 ppm to the facility for incineration.

All laboratory analyses shall be reported to the permittee directly from the laboratory and shall be retained on site and available for inspection by the OEPA for a minimum of five (5) years.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (12) The permittee shall maintain daily records of the materials received for burning at the facility. The records shall contain, as a minimum, the following information:
- a. name and address of the facility from which the material was received;
 - b. name and address of the facility from which the material was generated or blended;
 - c. date the material was received;
 - d. amount of material and type of container; and
 - e. description of the material including chemical composition.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (13) The permittee shall maintain daily records of the materials burned in the kiln and main combustion chamber. The record shall include, but not be limited to, the specific OPLs relating to waste feed rates established during the most recent CPT and reported in the subsequent NOC.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (14) The permittee shall record the date, time, duration, and reason for each AWFCO actuated as a result of the following;
- a. an excursion from the RCRA Part B Permit;
 - b. when any of the following are exceeded: operating parameter limits specified under 40 CFR 63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;
 - c. when the span value of any continuous monitoring system (CMS) detector, except a CEMS, is met or exceeded;
 - d. upon malfunction of a CMS monitoring an operating parameter limit specified under 40 CFR 63.1209 or an emission level; or
 - e. when any component of the automatic waste feed cutoff system fails.

A record of the weekly AWFCO operability testing shall be maintained, and/or a record documenting that any weekly inspection will unduly restrict or upset operations, in which case, a monthly inspection shall be conducted and the event documented.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (15) The permittee shall record the fuels used during incinerator startup.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (16) The permittee shall maintain a record of hours of operation of the incineration system. The hours of operation shall be represented by the time during which waste or virgin fuel is being burned.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

e) Reporting Requirements

- (1) The permittee shall comply with all applicable notification requirements listed in the most recent version of 40 CFR 63.1210. These requirements include, but may not be limited to, the following rule citations:

40 CFR 63.9(b)	Initial notification that you are subject to 40 CFR Part 63, Subpart EEE.
40 CFR 63.9(d)	Notification that you are subject to special compliance requirements.
40 CFR 63.9(j)	Notification and documentation of any changes in information already provided under 40 CFR 63.9.
40 CFR 63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance.
40 CFR 63.1207(e), 63.9(e), 63.9(g)(1) and (3)	Notification of performance test and CMS evaluation.
40 CFR 63.1210(b)	Notification of intent to comply
40 CFR 63.1210(d), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (2) The permittee shall comply with all applicable reporting requirements listed in the most recent version of 40 CFR 63.1211. These reports include, but are not limited to, the following rule citations and requirements:

- a. 40 CFR 63.10(d)(5)(i)

Periodic startup, shutdown, and malfunction reports are required to be submitted semiannually to the OEPA Northeast District Office if a startup or shutdown causes an exceedance of any applicable emission limitation or if a malfunction occurred during the reporting period, and the actions taken by the permittee were consistent with the procedures specified in the startup, shutdown and malfunction plan.

40 CFR 63.10(d)(5)(ii)

Immediate startup, shutdown, and malfunction reports are required to be submitted to the OEPA Northeast District Office if a startup or shutdown causes an exceedance of any applicable emission limitation or if a malfunction occurred during the reporting period, and the actions taken by the permittee were not consistent with the procedures specified in the startup, shutdown and malfunction plan. The permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event.

40 CFR 63.10(e)(3)

Excessive emissions and continuous monitoring system performance report and summary report are to be submitted to the OEPA Northeast District Office semiannually, except as provided by rule.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- b. 40 CFR 63.1206(c)(2)(ii)(B)

A startup, shutdown, and malfunction plan shall be submitted to the OEPA for review and approval.

40 CFR 63.1206(c)(3)(vi)

Excessive exceedances reports. For each set of 10 exceedances of an emission standard or operating requirement (or OPL) while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee must submit to the OEPA Northeast District Office a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (3) The permittee shall comply with the following quarterly reporting requirements for the EU and its continuous emissions monitoring systems (THC or CO, SO₂, NO_x, Opacity):
- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous emissions monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the OEPA Northeast District Office documenting all instances of emissions in excess of any applicable limit specified in this permit and any other applicable rules or regulations. The report shall

document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of each continuous emissions monitoring system;
 - iii. the location of the continuous monitor;
 - iv. the exceedance report as detailed in (a) above;
 - v. the total emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the EU;
 - vii. the total operating time of the continuous emissions monitoring system while the EU was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. the results of any relative accuracy test audit showing the continuous monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction of the continuous monitoring system, EU, and/or control equipment;
 - xii. the date, time, and duration of any downtime of the continuous monitoring system and/or control equipment while the EU was in operation; and
 - xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Sulfur dioxide emissions shall not exceed 11.34 pounds per hour

Applicable Compliance Method:

Compliance shall be determined by operating the continuous emissions monitoring system (CEMS) for sulfur dioxide and comparing the emissions limitation to a three-hour block average gathered during the following blocks of time: 0001-0300; 0301-0600; 0601-0900; 0901-1200; 1201-1500; 1501-1800; 1801-2100; and 2101-0000. Or, if required by OEPA, compliance shall be determined by emissions testing, using U.S. EPA Reference Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Sulfur dioxide emissions shall not exceed 49.69 TPY.

Applicable Compliance Method:

Compliance shall be determined by operating the CEMS for sulfur dioxide and making the necessary conversion from lb/hr to ton/year.

c. Emission Limitation:

NOx emissions shall not exceed 28.36 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined by operating the CEMS for NOx and comparing the emissions limitation to a three-hour block average gathered during the following blocks of time: 0001-0300; 0301-0600; 0601-0900; 0901-1200; 1201-1500; 1501-1800; 1801-2100; and 2101-0000. Or, if required by OEPA, compliance shall be determined by emissions testing, using U.S. EPA Reference Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

NOx emissions shall not exceed 124.23 TPY.

Applicable Compliance Method:

Compliance shall be determined by operating the CEMS for NOx and making the necessary conversion from lbs/hr to TPY.

e. Emission Limitation:

Dioxin and furan emissions from the stack shall not exceed of 0.20 ng toxicity equivalence (TEQ) per dry standard cubic meter (dscm) corrected to 7 percent oxygen.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 0023A, Sampling Method for Polychlorinated Dibenzop-Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in 40 CFR 63.1208(a). The permittee may sample for a minimum of three hours and must collect a minimum sample volume of 2.5 dscm. The permittee may assume that nondetects are present at zero concentration.

After performance testing, compliance shall be determined by compliance with the applicable Operating Parameter Limits specified in 40 CFR 63.1209(k), established during the most recent CPT and reported in the subsequent NOC.

f. Emission Limitation:

Mercury emissions from the stack shall not exceed of 130 ug/dscm corrected to 7 percent oxygen.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 29, provided in Appendix A of 40 CFR, Part 60.

After performance testing, compliance shall be determined by compliance with the applicable Operating Parameter Limits specified in 40 CFR 63.1209(l), established during the most recent CPT and reported in the subsequent NOC.

g. Emission Limitation:

Combined emissions of lead and cadmium from the stack shall not exceed 230 ug/dscm corrected to 7 percent oxygen.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 29, provided in Appendix A of 40 CFR, Part 60.

After performance testing, compliance shall be determined by compliance with the applicable Operating Parameter Limits specified in 40 CFR 63.1209(n), established during the most recent CPT and reported in the subsequent NOC.

h. Emission Limitation:

Combined emissions of arsenic, beryllium, and chromium shall not exceed 92 ug/dscm corrected to 7 percent oxygen.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 29, provided in Appendix A of 40 CFR, Part 60.

After performance testing, compliance shall be determined by compliance with the applicable Operating Parameter Limits specified in 40 CFR 63.1209(n), established during the most recent CPT and reported in the subsequent NOC.

i. Emission Limitation:

Beryllium emissions from the stack shall not exceed 10 grams per 24-hour period.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 29, provided in Appendix A of 40 CFR, Part 60.

j. Emission Limitation:

CO emissions from the stack shall not exceed 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen and 95.26 TPY; or Hydrocarbons emissions from the stack shall not exceed 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, reported as propane, and 15.00 TPY.

Applicable Compliance Method:

Compliance shall be determined by operating the continuous emissions monitoring system (CEMS) for CO and or hydrocarbons. Or, if required by OEPA, compliance shall be determined by emissions testing, using Method 10 and Methods 18, 25 or 25A, provided in Appendix A of 40 CFR, Part 60.

Compliance with the annual limit shall be determined by making the necessary conversion from the CEMS to TPY.

k. Emission Limitation:

Combined hydrochloric acid and chlorine gas emissions from the stack shall not exceed 32 parts per million by volume, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen and 116.85 TPY.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 26A, 320, or 321 provided in Appendix A of 40 CFR, Part 60.

Compliance with the annual limit shall be determined by calculation, using the maximum process flow rate in dscm and the most recent result from emission testing, corrected to 7 percent oxygen.

After performance testing, compliance shall be determined by compliance with the applicable OPLs specified in 40 CFR 63.1209(o), established during the most recent CPT and reported in the subsequent NOC.

I. Emission Limitation:

PE from the stack shall not exceed 0.013 grain/dscf corrected to 7 percent oxygen and 24.74 TPY.

Applicable Compliance Method:

Compliance shall be determined by emission testing, using Method 5 or 5l, provided in Appendix A of 40 CFR, Part 60.

Compliance with the annual limit shall be determined by calculation, using the maximum process flow rate in dscm and the most recent result from emission testing, corrected to 7 percent oxygen.

After performance testing, compliance shall be determined by compliance with the applicable OPLs specified in 40 CFR 63.1209(m), established during the most recent CPT and reported in the subsequent NOC.

m. Emission Limitation:

This EU shall achieve a destruction and removal efficiency (DRE) of 99.99% for each selected principle organic hazardous constituent (POHC).

Applicable Compliance Method:

Compliance shall be determined by emissions testing, using approved U.S. EPA reference methods, and the following equation:

$$DRE = [1 - (W_{out}/W_{in})] \times 100\%$$

where:

Win = mass feedrate of one POHC in a waste feedstream; and
Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

After performance testing, compliance shall be determined by compliance with the applicable Operating Parameter Limits specified in 40 CFR 63.1209(j), established during the most recent CPT and reported in the subsequent NOC.

n. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be determined by operating the continuous opacity monitoring system (COMS). Or, if required by OEPA, compliance shall be determined using Method 9, provided in Appendix A of 40 CFR, Part 60.

o. Emission Limitation:

There shall be no visible PE of fugitive dust.

Applicable Compliance Method:

Compliance shall be determined by compliance with 40 CFR 63.1206(c)(5) pertaining to Combustion System Leaks and with 40 CFR 63.1209(p) pertaining to the Maximum combustion chamber pressure. Or, if required by OEPA, compliance shall be determined using Method 22, provided in Appendix A of 40 CFR, Part 60.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (2) The permittee shall comply with all applicable performance testing requirements contained in the most recent version of 40 CFR 63.1207, using the test methods contained in the most recent version of 40 CFR 63.1208.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (3) The permittee shall notify the OEPA of all CPTs and Confirmatory Tests per the requirements of 40 CFR 63.1207(e). The content of the performance test plan shall comply with the requirements of 40 CFR 63.1207(f).

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

Except as provided by 40 CFR 63.1207(j)(4) and (j)(5), within 90 days of completion of a CPT, the permittee must postmark a NOC documenting compliance with the emission standards and continuous monitoring system requirements and identifying operating parameter limits under 40 CFR 63.1209.

Except as provided by 40 CFR 63.1207(j)(4), within 90 days of completion of a confirmatory performance test, the permittee must postmark a NOC documenting compliance or noncompliance with the applicable dioxin/furan emission standard.

NOCs are to be submitted to the OEPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (4) Frequency of testing. The permittee shall conduct testing periodically as prescribed in (4)a. through (4)c. The date of commencement of the initial CPT is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. The permittee may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and CPTs is based on

the date of commencement of the previous CPT. Unless the OEPA grants a time extension, the permittee shall conduct testing as follows:

- a. Comprehensive performance testing. The permittee shall commence testing no later than 61 months after the date of commencing the previous CPT used to show compliance. If the permittee submits data in lieu of the initial performance test, the permittee shall commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.
- b. Confirmatory performance testing. The permittee shall commence confirmatory performance testing no later than 31 months after the date of commencing the previous CPT used to show compliance. If the permittee submits data in lieu of the initial performance test, the permittee shall commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the OEPA will not approve a test plan that schedules testing within 18 months of commencing the previous CPT.
- c. Duration of testing. The permittee shall complete performance testing within 60 days after the date of commencement, unless the OEPA determines that a time extension is warranted based on the permittee's documentation, in writing, of factors beyond control that prevent the 60-day deadline.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

g) Miscellaneous Requirements

- (1) None.

6. P001, CONTAINER PROCESSING

Operations, Property and/or Equipment Description:

Container handling operations include: drum receiving and sampling station, 4-drum heater where material is heated to make it more liquid, drum alter/routing/punch, lab pack storage/repackaging, drum splitting station, drum discrepancy and reactive drum station, drum pumpout to tank farm, direct drum pump out to incinerator, absorbent add station, and drum storage room. Emissions from the drum handling operations shall vent through a closed-vent system (vapor recovery system) to the incinerator (N001) and/or the carbon adsorption system.

- a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (P0108374)	OC shall not exceed 3.0 lbs/hr and 13.14 TPY. See sections b)(2)b through b)(2)p.
b.	OAC rule 3745-17-07(A)	Visible PE from the roof vents shall not exceed 20% opacity as a 6-minute average.
c.	OAC rule 3745-17-07(B)	Visible PE of fugitive dust shall not exceed 20% opacity as a 3-minute average.
d.	OAC rule 3745-17-08(B)	The permittee shall utilize reasonable available control measures that are sufficient to minimize or eliminate VE of fugitive dust.
e.	OAC rule 3745-17-11(B)	PE shall not exceed 0.877 lb/hour.
f.	40 CFR Part 61, Subpart FF	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)p.
g.	40 CFR Part 63, Subpart DD	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See section b)(2)p.
h.	40 CFR Part 63, Subpart PP	See section b)(2)o.

(2) Additional Terms and Conditions

- a. Container processing operations include: Container receiving and sampling station; 4-drum heater where material is heated to make it more liquid; Container alter/routing/punch; Lab pack storage/repackaging; Container splitting station; Container discrepancy and reactive container station; Container pump out to tank farm; Direct drum pump out to Incinerator; Absorbent add station; and Container storage room.
- b. The container processing operations, identified in section b)(2).a above, shall be housed within a building.
- c. The cover and/or opening (e.g., bungs, hatches, and sampling ports) of each container (e.g., drum, tote) located within this EU shall be maintained in a closed, sealed position at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling.
- d. The cover and/or opening (e.g., bungs, hatches, and sampling ports) of each container (e.g., drum, tote) located within this EU shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
- e. When a waste is transferred into a container by pumping, the transfer shall be performed by using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover.
- f. The vapor recovery system, or closed-vent system, shall be in operation with operational snorkels in place to capture emissions when waste is being processed. The snorkel(s) is(are) to be adequately placed over the activity in such a manner that maximum capture is achieved.
- g. The vapor recovery system shall route organic vapors to the incinerator, EU N001, and/or to the carbon adsorption system. The incinerator and/or the carbon adsorption system shall be in operation when waste is being processed within this EU.
- h. The vapor recovery system upstream from the ventilation header blower shall be operated at a pressure below atmospheric pressure so that there is adequate suction, or inward flow, at each snorkel.

- i. The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.
- j. The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.
- k. The carbon adsorption system shall consist of two or more trains of a primary and a secondary carbon box operated in series. The trains shall be arranged in parallel. All boxes shall be the same size and have a maximum design flow rate of no less than 10,000 cfm. The carbon adsorption system shall be installed, operated and maintained in accordance with the "Von Roll's Routine Maintenance Procedure for Vapor Recovery Management" initially dated October 27, 2006, (also referred to as the "Routine Maintenance Procedure") and any updated, approved plan thereafter.
- l. The existing carbon within the carbon adsorption system shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. Carbon breakthrough will be determined by a reading of 50 ppm as a 60-minute rolling average from the Total Hydrocarbon (THC) Continuous Emissions Monitor (CEM) located between the first and second carbon bed in each train. This CEM shall be referred to as an Inter-Box CEM. The permittee is permitted to replace the carbon more frequently, i.e., before breakthrough is indicated, if the permittee determines that the carbon within any box is not effectively adsorbing volatile OC, including benzene.
- m. The vapor recovery system, or closed-vent system, shall comply with the following requirements:
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 - iii. One or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.
- n. The permittee shall control equipment leaks from each equipment component of this EU in accordance with sections 61.242 through 61.247 in 40 CFR Part 61, Subpart V - National Emission Standards for Equipment Leaks.
- o. 40 CFR 63.688 (standards for containers) refers to 40 CFR Part 63, Subpart PP for the control of air emissions from a container. The following requirements are specified for the containers located within this EU:

- i. If a container has a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³, or if it has a design capacity greater than 0.46 m³ and the container is not in light material service as defined in Section 63.681, then the permittee controls air emissions from the container in accordance with Container Level 1, 2 or 3 controls, as specified in 40 CFR Part 63, Subpart PP.
 - ii. If a container has a design capacity greater than 0.46 m³ and the container is in light material service as defined in Section 63.681, then the permittee controls air emissions from the container in accordance with the standards for Container Level 2 or 3 controls, as specified in 40 CFR Part 63, Subpart PP.
 - iii. If a container has a design capacity greater than 0.1 m³ and is used for treatment of an off-site material by a waste stabilization process as defined in Section 63.681, then the permittee controls air emissions from the container at those times during the process when the off-site material in the container is exposed to the atmosphere in accordance with the standards for Container Level 3 controls, as specified in 40 CFR Part 63, Subpart PP.
- p. When this EU is subject to the requirements of 40 CFR Part 61, Subpart FF (National Emissions Standards for Benzene Waste Operation), the permittee is exempt from Section 63.688 (standards for containers) of 40 CFR Part 63, Subpart DD. Because benzene may be present in the waste handled by this EU at any given time, the requirements contained in both 40 CFR Part 61, Subpart FF and 40 CFR Part 63, Subpart DD serve as a basis for determining the Best Available Technology established pursuant to OAC rule 3745-31-05(A)(3).
- q. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous THC monitoring system, designed to ensure continuous valid and representative readings of THC emissions in units of parts per million. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan dedicated to the continuous THC monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of parts per million, in accordance with and at the frequencies required per 40 CFR Part 60.

c) Operational Restrictions

- (1) The permittee shall operate a sufficient number of trains in the carbon adsorption system to ensure that the flow rate through each primary carbon box does not exceed the manufacturer's recommended maximum design air flow rate.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (2) When breakthrough within a train of the carbon adsorption system occurs, the permittee shall discontinue the use of that train as soon as possible but not longer than 12 hours after detection of breakthrough. The change-out must be completed within 48 hours after the use of the train that has been discontinued. The change-out shall be performed such that the

secondary carbon box becomes the primary box and a new carbon box is installed as the secondary box.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (3) If an Inter-Box CEMS reading is equal to or greater than 50 ppm on a 60-minute rolling average within 15 days after a change-out, the permittee is not required to initiate and complete a new change-out of the primary box pursuant to the Routine Maintenance Procedure. Instead, as expeditiously as possible, the permittee shall initiate and complete an investigation of the cause of the elevated Inter-Box CEMS reading to determine if the carbon within the primary box actually is spent or otherwise not functional. If the permittee determines the carbon within the primary box is spent or otherwise not functional, the permittee shall immediately initiate and complete a change-out of the primary box pursuant to the Routine Maintenance Procedure. If the permittee determines that the elevated Inter-Box CEMS reading is not caused by spent or non-functional carbon, the permittee shall implement corrective actions, if any to eliminate the cause(s) of the elevated readings. If within 5 days after the elevated Inter-Box CEMS reading, the permittee cannot determine the cause of the elevated reading, the permittee immediately shall initiate and complete a change-out of the primary box pursuant to the Routine Maintenance Procedure.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

- (4) The permittee shall maintain on-site a sufficient supply of fresh carbon or a spare carbon box containing fresh carbon to enable a change-out procedure to be performed in a timely manner.

[Authority for term: OAC rule 3745-77-07(A)(1) and P0108374]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) Each cover and/or opening of the containers located within this EU shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly, if not being processed at the time. If a broken seal or gasket is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. Each cover and/or opening of the containers shall also be inspected initially and at least one per year by the methods specified in Section 61.355(h) to determine if the containers are operating with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (2) The permittee shall perform quarterly, visual inspections of the vapor recovery system and control devices (incinerator and carbon adsorption system). The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connection.

If visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the vapor recovery system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are

detected or the visible defect is observed. Exception for delay of repair would be allowed per 40 CFR 61.350.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (3) The permittee shall install, calibrate, operate and maintain equipment to continuously monitor and record total hydrocarbons (THC), in units of parts per million, between the first and second carbon bed of each train of the carbon adsorption system (Inter-Box CEMS) for the purpose of determining breakthrough. A THC monitor and recorder shall also be on the exhaust vent stream.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- a. A statement of approval of the continuous THC monitoring system shall be maintained on site and shall consist of a letter from the OEPA detailing the results of an Agency review of the performance specifications tests and a statement by the Agency that the system is considered approved for use in accordance with the requirements of 40 CFR Part 60, Appendix B, performance Specification 8A - Specifications and Test Procedures for Total Hydrocarbon Continuous Monitoring Systems in Stationary Sources. Proof of approval shall be made available to the Director (OEPA Northeast District Ohio) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in parts per million, and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- b. The permittee shall operate and maintain equipment to continuously monitor and record THC emissions in units of parts per million. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- c. The permittee shall maintain records of data obtained by the continuous THC monitoring system including, but not limited to:
- i. emissions of THCs in parts per million on an instantaneous (one-minute) basis;
 - ii. emissions of THCs in parts per million on a 60-minute rolling average;
 - iii. results of quarterly cylinder gas audits;
 - iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - v. results of required relative accuracy test audit (or PS 8A alternative);

- vi. hours of operation of the EU, continuous THC monitoring system, and carbon adsorption system;
- vii. the date, time, and hours of operation of the EU without the carbon adsorption system and/or the continuous THC monitoring system;
- viii. the date, time, and hours of operation of the EU during any malfunction of the control equipment and/or the continuous THC monitoring system; and
- ix. the reason (if known) and the corrective actions taken (if any) for each such event in (c.vii) and (c.viii). These records shall be kept at the facility no less than 3 years and be available for inspection upon request by the OEPA.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (4) With respect to each Inter-Box CEMS, the permittee shall comply with Performance Specification 8A, except that the permittee shall:
 - a. to the extent that the permittee utilizes two ducts between each primary and each secondary box for pressure control purposes, be permitted to utilize a sample location on only one of the two ducts;
 - b. keep the sample probe heated to approximately the same temperature as, or slightly higher than, the temperature inside the duct in which it is inserted;
 - c. establish a span value of 200 ppm propane; and
 - d. utilize the following three test points for conducting calibration error tests:
 - i. Zero Level: zero to 0.1 ppm;
 - ii. Mid-Level: 40 to 60 ppm;
 - iii. High-Level: 140 to 160 ppm.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-18743]

- (5) On a continuous basis, the permittee shall direct the Inter-Box CEMS data to the facility's control system and shall maintain an alarm that will sound whenever breakthrough between a primary and a secondary carbon box occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (6) During times when a train of the carbon adsorption system is not in use, the permittee shall record "no flow" instead of a THC concentration for the respective Inter-Box CEMS.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (7) The permittee shall maintain, and retain for the life of each control device, the following records:
 - a. statement signed and dated by the permittee certifying that the vapor recovery system and control device (incinerator and carbon adsorption system) are designed to

operate at the documented performance level when this EU is operating at the highest load or capacity. The document will therefore include the following:

- i. a statement certifying that the vapor recovery system is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, is designed so that all gauging and sampling devices be gas-tight except when gauging or sampling is taking place, and that any rupture discs remain closed during normal operation.
- ii. a statement certifying that the incinerator can achieve a 99.99% reduction efficiency for OC when this EU is operating at its highest load or capacity; and
- iii. a statement certifying that the carbon adsorption system can achieve a 95% control efficiency for OC when this EU is operating at its highest load or capacity.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- b. the design analysis showing control device performance. The design analysis shall include specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts.

For the incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

For the carbon adsorption system, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. The design analysis shall also establish the design exhaust vent stream OC concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (8) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the vapor recovery system upstream from the ventilation header blower. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (9) The permittee shall install, calibrate, maintain and operate according to the manufacturer's specifications a device to continuously monitor the temperature in the combustion chamber of the incinerator, as a control device for this EU. The temperature monitoring device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degree

Celsius, or plus or minus 0.5 degree Celsius, whichever is greater. This record shall be reviewed according to the terms and conditions for EU N001.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (10) The permittee shall maintain records that contain the following information:
- a. a record of any time when the vapor recovery system was not in operation when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - c. any record indicating that the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action, if any;
 - d. any time when pumping occurred without submerged fill. The record should include the date and an explanation; and
 - e. any record indicating detectable emissions from the vapor recovery system, cover and/or opening of any container, and/or any equipment component of this EU. This record may be included in the monthly Leak Detection and Repair Program report.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

- (11) The permittee shall perform daily checks, when weather conditions allow, for any fugitive VE and for VE from any roof vents for one calendar quarter. The presence or absence of any fugitive VE or VE from a roof vent shall be noted in an operations log. If fugitive VE are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any VE incident; and
 - e. any corrective actions taken to minimize or eliminate the VE.

If no VE are noted for each daily inspection during that calendar quarter, then the frequency may become weekly. If VE are noted during a weekly inspection, the permittee shall revert to daily inspections and perform daily inspections until no VE are documented for an entire calendar quarter, at which time the permittee may again perform inspections on a weekly basis.

If VE are present, a VE incident has occurred. The observer does not have to document the exact start and end times for the VE incident under item (d) above or continue the check until the incident has ended. The observer may indicate that the VE incident was continuous during the observation period. With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the VE were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the EU continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. any time when the vapor recovery system was not in operation when waste was processed within this EU;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU;
 - c. any record indicating the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU;
 - d. any record indicating detectable emissions from the vapor recovery system, cover and/or opening of any container, and/or any equipment component of this EU; and
 - e. each day or week during which any VE (whether they be fugitive or from a roof vent) were observed and the corrective actions taken.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:
OC shall not exceed 3.0 lbs/hr and 13.14 TPY

Applicable Compliance Method:

If required by OEPA, compliance shall be determined by emission testing for this EU in accordance with Methods 18, 25 or 25A of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Visible PE from the roof vents shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

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

c. Emissions Limitation:

Visible PE of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through VE observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emissions Limitation:

PE shall not exceed 0.887 lb/hour.

Applicable Compliance Method:

If required by OEPA, compliance shall be determined by emission testing for this EU in accordance with Method 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and P0108374]

g) Miscellaneous Requirements

(1) None.

7. P003, TANKER TRANSFER STATION (BAY 2)

Operations, Property and/or Equipment Description:

Tanker trucks unload liquid material that is piped to either the incinerator or to the tank farm. Blended material from tank farm may also be piped back to station for loading into tanker truck. Emissions generated from unloading and loading at the station are vented to the vapor recovery system.

a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (PTI 02-20067, modification issued 9/26/06)	OC emissions shall not exceed 3.5 lbs/hr, 15.1 TPY. Fugitive OC emissions shall not exceed 33.7 TPY. See sections b)(2)a. through b)(2)l.
b.	40 CFR Part 61, Subpart FF	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.
c.	40 CFR Part 63, Subpart DD	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.

(2) Additional Terms and Conditions

- a. The doors of this EU shall be closed when waste is being processed within this EU.
- b. The vapor recovery system, or closed-vent system, shall be in operation with operational snorkels in place to capture 90% of emissions when waste is being

processed within this EU. The snorkel is to be placed directly over the tanker vent in a manner in which the vent is inside the snorkel.

- c. The vapor recovery system shall route organic vapors to the incinerator, EU N001, and/or to the carbon adsorption system. The incinerator and/or the carbon adsorption system shall be in operation when waste is being processed within this EU.
- d. The vapor recovery system upstream from the ventilation header blower shall be operated at a pressure below atmospheric pressure so that there is adequate suction, or inward flow, at the snorkel.
- e. The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.
- f. The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.
- g. The transfer system conveying the liquid waste to and from the tank farm and to the incinerator shall consist of continuous hard piping. All joints or seams between the pipe section shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). However, a flexible hose from the pump to the tanker is allowed.
- h. The vapor recovery system, or closed-vent system, shall comply with the following requirements:
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 - iii. One or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.
- i. When a tanker truck is loaded, it shall be loaded only by the submerged fill method. The end of the submerged pipe, or point of liquid transfer, shall be within two fill pipe diameters of the bottom of the tanker truck. Any hatch or opening of the tanker truck shall also remain closed during loading, except for those opening(s) necessary for venting to prevent physical damage or deformation of the tanker truck.
- j. The permittee shall control equipment leaks from each equipment component of this EU in accordance with sections 61.242 through 61.247 in 40 CFR Part 61, Subpart V - National Emission Standards for Equipment Leaks.

- k. Only one activity, loading or unloading, may be performed at any one time. Calculated emissions from loading activities are greater than those for unloading. The hourly emissions limit of 3.5 lbs OC/hour is based on the maximum potential emissions from the loading activity of a worse case fuel blend mixture, a loading loss value of 41.9 lbs/1,000 gallons, a maximum loading throughput of 44,000 gallons per 24 hours, and control by the carbon adsorption system with a 95% control efficiency.
- l. When this EU is subject to the requirements of 40 CFR Part 61, Subpart FF (National Emissions Standards for Benzene Waste Operations), the permittee is exempt from Section 63.689 (standards for transfer system) of 40 CFR Part 63, Subpart DD. Because benzene may be present in the waste handled by this EU at any given time, the requirements contained in both 40 CFR Part 61, Subpart FF and 40 CFR Part 63, Subpart DD serve as a basis for determining the Best Available Technology established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) Only one activity, loading or unloading, may be performed at any one time.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (2) The permittee shall restrict certain waste streams from being processed and/or blended in this EU in accordance with the State of Ohio Hazardous Waste Facility Installation and Operation Permit.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (3) The maximum loading throughput of 44,000 gallons per day shall not be exceeded.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (4) The physical properties of the waste stream handled by this EU shall not cause the calculated loading loss value to be more than 41.9 pounds per 1,000 gallons.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (5) The existing carbon within the carbon adsorption system shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. Carbon breakthrough will be determined by the most current practice acceptable to the OEPA.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day:
 - a. the number of gallons loaded;
 - b. the calculated loading loss value, in lbs/1,000 gallons, for the waste stream handled that day by this EU during a day when loading activities occurred. If more than one type of waste stream was handled, the permittee shall use the one with the highest

vapor pressure. The loading loss value shall be calculated by the following equation, taken from AP-42 Chapter 5.2 (1/95):

$$L = 12.46 (S \times P \times M) / T$$

where:

L = Loading loss, in lbs/1,000 gallons;

S = Saturation factor, value found in Table 5.2-1 of AP-42, Chapter 5.2;

P = True vapor pressure of material, in psia;

M = Molecular weight of material, in lb/lb-mole. If the molecular weight of the fuel blend cannot be determined, the permittee shall use the highest molecular weight from the current list of possible constituents that contribute to organic emissions; and

T = Temperature of material, in degree rankine.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (2) The permittee shall monitor for detectable fugitive OC emissions over all covers, hatches, and ports of any tanker truck containing waste if the tanker truck remains on-site for over 24 hours. No detectable emissions would be indicated by an instrument reading of less than 500 ppmv above background.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (3) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the OC emissions from the exhaust vent stream from the carbon adsorption system. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-70(C)(1) and PTI 02-20067]

- (4) The permittee shall maintain, and retain for the life of each control device, the following records:
- a. statement signed and dated by the permittee certifying that the vapor recovery system and control device (incinerator and carbon absorption system) are designed to operate at the documented performance level when this EU is operating at the highest load or capacity. The document will therefore include the following:
 - i. a statement certifying that the vapor recovery system is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, is designed so that all gauging and sampling devices be gas-tight except when gauging or sampling is taking place, and that any rupture discs remain closed during normal operation;
 - ii. a statement certifying that the incinerator can achieve a 99.99 % reduction efficiency for OC when this EU is operating at its highest load or capacity; and

- iii. a statement certifying that the carbon adsorption system can achieve a 95% control efficiency for OC when this EU is operating at its highest load or capacity.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- b. the design analysis showing control device performance. The design analysis shall include specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts.

For the incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

For the carbon adsorption system, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream OC concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (5) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the vapor recovery system upstream from the ventilation header blower. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (6) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the temperature in the combustion chamber of the incinerator, as a control device for this EU. The temperature monitoring device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degree Celsius, or plus or minus 0.5 degree Celsius, whichever is greater. This record shall be reviewed according to the terms and conditions for EU N001 under a separate permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (7) The permittee shall perform quarterly, visual inspections of the vapor recovery system and control devices (incinerator and carbon adsorption system). The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.

If visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the vapor recovery system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are

detected or the visible defect is observed. Exception for delay of repair would be allowed per 40 CFR 61.350.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (8) The permittee shall maintain records that contain the following information:
- a. a record of any time when the vapor recovery system was not in operation when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - c. any record indicating that the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action, if any;
 - d. any time when loading occurred without submerged fill. The record should include the date and an explanation;
 - e. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU. This record may be included in the monthly Leak Detection and Repair Program report; and
 - f. any record indicating the loading and unloading activities occurred at the same time within this EU. This record should include the date and an explanation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. each day when the number of gallons loaded exceeded 44,000 gallons;
 - b. each day when the calculated loading loss value exceeded 41.9 pounds per 1,000 gallons;
 - c. any time when the vapor recovery system was not in operation when waste was processed within this EU;
 - d. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU;
 - e. any record indicating the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU;

- f. each day when loading occurred without submerged fill;
- g. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU; and
- h. any record indicating the loading and unloading activities occurred at the same time within this EU.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

OC emissions shall not exceed 3.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

- b. Emission Limitation:

OC emissions shall not exceed 15.1 TPY.

Applicable Compliance Method:

Compliance with the above emissions limitation is demonstrated when compliance with the hourly emissions rate is achieved.

- c. Emission Limitation:

Fugitive OC emissions shall not exceed 33.7 TPY.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day

of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

d. Emission Limitation:

The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.

Applicable Compliance Method:

The incinerator is already required to achieve a destruction efficiency of 99.99% for Principle Organic Hazardous Constituents (POHCs) under a separate permit for EU N001. Comprehensive Performance Testing (CPT) established that the incinerator meets the required destruction efficiency of 99.99% for POHCs, which represents the more difficult OC to destroy. To remain in compliance with this requirement, the incinerator must operate within the operating parameter limits established during the CPT, or most recent testing, as stated in the terms and conditions for EU N001 under separate permit.

e. Emission Limitation:

The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping in section d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

g) Miscellaneous Requirements

(1) None.

8. P004, TANKER TRANSFER STATION (BAY 3)

Operations, Property and/or Equipment Description:

Tanker trucks unload liquid material that is piped to either the incinerator or to the tank farm. Blended material from tank farm may also be piped back to station for loading into tanker truck. Emissions generated from unloading and loading at the station are vented to the vapor recovery system.

a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (PTI 02-20067, modification issued 9/26/06)	OC emissions shall not exceed 3.5 lbs/hr, 15.1 TPY. Fugitive OC emissions shall not exceed 33.7 TPY. See sections b)(2)a. through b)(2)l.
b.	40 CFR Part 61, Subpart FF	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.
c.	40 CFR Part 63, Subpart DD	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.

(2) Additional Terms and Conditions

- a. The doors of this EU shall be closed when waste is being processed within this EU.
- b. The vapor recovery system, or closed-vent system, shall be in operation with operational snorkels in place to capture 90% of emissions when waste is being processed within this EU. The snorkel is to be placed directly over the tanker vent

and/or container opening in a manner in which the tanker vent and/or container opening is inside the snorkel.

- c. The vapor recovery system shall route organic vapors to the incinerator, EU N001, and/or to the carbon adsorption system. The incinerator and/or the carbon adsorption system shall be in operation when waste is being processed within this EU.
- d. The vapor recovery system upstream from the ventilation header blower shall be operated at a pressure below atmospheric pressure so that there is adequate suction, or inward flow, at the snorkel.
- e. The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.
- f. The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.
- g. The transfer system conveying the liquid waste to and from the tank farm and to the incinerator shall consist of continuous hard piping. All joints or seams between the pipe section shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). However, a flexible hose from the pump or container to the tanker is allowed.
- h. The vapor recovery system, or closed-vent system, shall comply with the following requirements:
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 - iii. One or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.
- i. When a tanker truck is loaded, it shall be loaded only by the submerged fill method. The end of the submerged pipe, or point of liquid transfer, shall be within two fill pipe diameters of the bottom of the tanker truck. Any hatch or opening of the tanker truck shall also remain closed during loading, except for those opening(s) necessary for venting to prevent physical damage or deformation of the tanker truck.
- j. The permittee shall control equipment leaks from each equipment component of this EU in accordance with sections 61.242 through 61.247 in 40 CFR Part 61, Subpart V - National Emission Standards for Equipment Leaks.

- k. Only one activity, loading or unloading, may be performed at any one time. Calculated emissions from loading activities are greater than those for unloading. The hourly emissions limit of 3.5 lbs OC/hour is based on the maximum potential emissions from the loading activity of a worse case fuel blend mixture, a loading loss value of 41.9 lbs/1,000 gallons, a maximum loading throughput of 44,000 gallons per 24 hours, and control by the carbon adsorption system with a 95% control efficiency.
- l. When this EU is subject to the requirements of 40 CFR Part 61, Subpart FF (National Emissions Standards for Benzene Waste Operations), the permittee is exempt from Section 63.689 (standards for transfer system) of 40 CFR Part 63, Subpart DD. Because benzene may be present in the waste handled by this EU at any given time, the requirements contained in both 40 CFR Part 61, Subpart FF and 40 CFR Part 63, Subpart DD serve as a basis for determining the Best Available Technology established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) Only one activity, loading or unloading, may be performed at any one time.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (2) The permittee shall restrict certain waste streams from being processed and/or blended in this EU in accordance with the State of Ohio Hazardous Waste Facility Installation and Operation Permit.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (3) The maximum loading throughput of 44,000 gallons per day shall not be exceeded.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (4) The physical properties of the waste stream handled by this EU shall not cause the calculated loading loss value to be more than 41.9 pounds per 1,000 gallons.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (5) The existing carbon within the carbon adsorption system shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. Carbon breakthrough will be determined by the most current practice acceptable to the OEPA.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day:
 - a. the number of gallons loaded;
 - b. the calculated loading loss value, in lbs/1,000 gallons, for the waste stream handled that day by this EU during a day when loading activities occurred. If more than one type of waste stream was handled, the permittee shall use the one with the highest

vapor pressure. The loading loss value shall be calculated by the following equation, taken from AP-42 Chapter 5.2 (1/95):

$$L = 12.46 (S \times P \times M) / T$$

where:

L = Loading loss, in lbs/1,000 gallons;

S = Saturation factor, value found in Table 5.2-1 of AP-42, Chapter 5.2;

P = True vapor pressure of material, in psia;

M = Molecular weight of material, in lb/lb-mole. If the molecular weight of the fuel blend cannot be determined, the permittee shall use the highest molecular weight from the current list of possible constituents that contribute to organic emissions; and

T = Temperature of material, in degree rankine.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (2) The permittee shall monitor for detectable fugitive OC emissions over all covers, hatches, and ports of any tanker truck containing waste if the tanker truck remains on-site for over 24 hours. No detectable emissions would be indicated by an instrument reading of less than 500 ppmv above background.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (3) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the OC emissions from the exhaust vent stream from the carbon adsorption system. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (4) The permittee shall maintain, and retain for the life of each control device, the following records:
 - a. a statement signed and dated by the permittee certifying that the vapor recovery system and control device (incinerator and carbon absorption system) are designed to operate at the documented performance level when this EU is operating at the highest load or capacity. The document will therefore include the following:
 - i. a statement certifying that the vapor recovery system is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, is designed so that all gauging and sampling devices be gas-tight except when gauging or sampling is taking place, and that any rupture discs remain closed during normal operation.
 - ii. a statement certifying that the incinerator can achieve a 99.99 % reduction efficiency for OC when this EU is operating at its highest load or capacity; and

- iii. a statement certifying that the carbon adsorption system can achieve a 95% control efficiency for OC when this EU is operating at its highest load or capacity.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- b. the design analysis showing control device performance. The design analysis shall include specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts.

For the incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

For the carbon adsorption system, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream OC concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (5) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the vapor recovery system upstream from the ventilation header blower. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (6) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the temperature in the combustion chamber of the incinerator, as a control device for this EU. The temperature monitoring device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degree Celsius, or plus or minus 0.5 degree Celsius, whichever is greater. This record shall be reviewed according to the terms and conditions for EU N001 under a separate permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (7) The permittee shall perform quarterly, visual inspections of the vapor recovery system and control devices (incinerator and carbon adsorption system). The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.

If visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the vapor recovery system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are

detected or the visible defect is observed. Exception for delay of repair would be allowed per 40 CFR 61.350.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (8) The permittee shall maintain records that contain the following information:
- a. a record of any time when the vapor recovery system was not in operation when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - c. any record indicating that the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action, if any;
 - d. any time when loading occurred without submerged fill. The record should include the date and an explanation;
 - e. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU. This record may be included in the monthly Leak Detection and Repair Program report; and
 - f. any record indicating the loading and unloading activities occurred at the same time within this EU. This record should include the date and an explanation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. each day when the number of gallons loaded exceeded 44,000 gallons;
 - b. each day when the calculated loading loss value exceeded 41.9 pounds per 1,000 gallons;
 - c. any time when the vapor recovery system was not in operation when waste was processed within this EU;
 - d. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU;
 - e. any record indicating the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU;

- f. each day when loading occurred without submerged fill;
- g. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU; and
- h. any record indicating the loading and unloading activities occurred at the same time within this EU.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

OC emissions shall not exceed 3.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

- b. Emission Limitation:

OC emissions shall not exceed 15.1 TPY.

Applicable Compliance Method:

Compliance with the above emissions limitation is demonstrated when compliance with the hourly emissions rate is achieved.

- c. Emission Limitation:

Fugitive OC emissions shall not exceed 33.7 TPY.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day

of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

d. Emission Limitation:

The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.

Applicable Compliance Method:

The incinerator is already required to achieve a destruction efficiency of 99.99% for Principle Organic Hazardous Constituents (POHCs) under a separate permit for EU N001. Comprehensive Performance Testing (CPT) established that the incinerator meets the required destruction efficiency of 99.99% for POHCs, which represents the more difficult OC to destroy. To remain in compliance with this requirement, the incinerator must operate within the operating parameter limits established during the CPT, or most recent testing, as stated in the terms and conditions for EU N001 under separate permit.

e. Emission Limitation:

The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping in section d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

g) Miscellaneous Requirements

(1) None.

9. P005, TANKER TRANSFER STATION (BAY 1)

Operations, Property and/or Equipment Description:

Tanker trucks unload liquid material that is piped to either the incinerator or to the tank farm. Blended material from tank farm may also be piped back to station for loading into tanker truck. Emissions generated from unloading and loading at the station are vented to the vapor recovery system. Waste containers not involving organics may also be split in this bay, from larger to smaller containers. Emissions are negligible.

- a) The following EU 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 operation(s), property, and/or equipment that constitute each EU 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) (PTI 02-20067, modification issued 9/26/06)	OC emissions shall not exceed 3.5 lbs/hr, 15.1 TPY. Fugitive OC emissions shall not exceed 33.7 TPY. See sections b)(2)a through b)(2)l.
b.	40 CFR Part 61, Subpart FF	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.
c.	40 CFR Part 63, Subpart DD	The requirements specified by this subpart are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). See section b)(2)l.

(2) Additional Terms and Conditions

- a. The doors of this EU shall be closed when waste is being processed within this EU.
- b. The vapor recovery system, or closed-vent system, shall be in operation with operational snorkels in place to capture 90% of emissions when waste is being processed within this EU. The snorkel is to be placed directly over the tanker vent and/or container opening in a manner in which the tanker vent and/or container opening is inside the snorkel.
- c. The vapor recovery system shall route organic vapors to the incinerator, EU N001, and/or to the carbon adsorption system. The incinerator and/or the carbon adsorption system shall be in operation when waste is being processed within this EU.
- d. The vapor recovery system upstream from the ventilation header blower shall be operated at a pressure below atmospheric pressure so that there is adequate suction, or inward flow, at the snorkel.
- e. The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.
- f. The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.
- g. The transfer system conveying the liquid waste to and from the tank farm and to the incinerator shall consist of continuous hard piping. All joints or seams between the pipe section shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). However, a flexible hose from the pump or container to the tanker is allowed.
- h. The vapor recovery system, or closed-vent system, shall comply with the following requirements:
 - i. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h).
 - ii. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 - iii. One or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.
- i. When a tanker truck is loaded, it shall be loaded only by the submerged fill method. The end of the submerged pipe, or point of liquid transfer, shall be within two fill pipe

diameters of the bottom of the tanker truck. Any hatch or opening of the tanker truck shall also remain closed during loading, except for those opening(s) necessary for venting to prevent physical damage or deformation of the tanker truck.

- j. The permittee shall control equipment leaks from each equipment component of this EU in accordance with sections 61.242 through 61.247 in 40 CFR Part 61, Subpart V - National Emission Standards for Equipment Leaks.
- k. Only one activity, loading or unloading, may be performed at any one time. Calculated emissions from loading activities are greater than those for unloading. The hourly emissions limit of 3.5 lbs OC/hour is based on the maximum potential emissions from the loading activity of a worse case fuel blend mixture, a loading loss value of 41.9 lbs/1,000 gallons, a maximum loading throughput of 44,000 gallons per 24 hours, and control by the carbon adsorption system with a 95% control efficiency.
- l. When this EU is subject to the requirements of 40 CFR Part 61, Subpart FF (National Emissions Standards for Benzene Waste Operations), the permittee is exempt from Section 63.689 (standards for transfer system) of 40 CFR Part 63, Subpart DD. Because benzene may be present in the waste handled by this EU at any given time, the requirements contained in both 40 CFR Part 61, Subpart FF and 40 CFR Part 63, Subpart DD serve as a basis for determining the Best Available Technology established pursuant to OAC rule 3745-31-05(A)(3).

c) **Operational Restrictions**

- (1) Only one activity, loading or unloading, may be performed at any one time.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (2) The permittee shall restrict certain waste streams from being processed and/or blended in this EU in accordance with the State of Ohio Hazardous Waste Facility Installation and Operation Permit.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (3) The maximum loading throughput of 44,000 gallons per day shall not be exceeded.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (4) The physical properties of the waste stream handled by this EU shall not cause the calculated loading loss value to be more than 41.9 pounds per 1,000 gallons.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]
- (5) The existing carbon within the carbon adsorption system shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. Carbon breakthrough will be determined by the most current practice acceptable to the OEPA.
[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 02-20067]

d) Monitoring and/or Recordkeeping Requirements

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

- a. the number of gallons loaded;
- b. the calculated loading loss value, in lbs/1,000 gallons, for the waste stream handled that day by this EU during a day when loading activities occurred. If more than one type of waste stream was handled, the permittee shall use the one with the highest vapor pressure. The loading loss value shall be calculated by the following equation, taken from AP-42 Chapter 5.2 (1/95):

$$L = 12.46 (S \times P \times M) / T$$

where:

L = Loading loss, in lbs/1,000 gallons;

S = Saturation factor, value found in Table 5.2-1 of AP-42, Chapter 5.2;

P = True vapor pressure of material, in psia;

M = Molecular weight of material, in lb/lb-mole. If the molecular weight of the fuel blend cannot be determined, the permittee shall use the highest molecular weight from the current list of possible constituents that contribute to organic emissions; and

T = Temperature of material, in degree rankine.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

(2) The permittee shall monitor for detectable fugitive OC emissions over all covers, hatches, and ports of any tanker truck containing waste if the tanker truck remains on-site for over 24 hours. No detectable emissions would be indicated by an instrument reading of less than 500 ppmv above background.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

(3) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the OC emissions from the exhaust vent stream from the carbon adsorption system. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

(4) The permittee shall maintain, and retain for the life of each control device, the following records:

- a. a statement signed and dated by the permittee certifying that the vapor recovery system and control device (incinerator and carbon absorption system) are designed to operate at the documented performance level when this EU is operating at the highest load or capacity. The document will therefore include the following:

- i. a statement certifying that the vapor recovery system is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, is designed so that all gauging and sampling devices be gas-tight except when gauging or sampling is taking place, and that any rupture discs remain closed during normal operation.
- ii. a statement certifying that the incinerator can achieve a 99.99 % reduction efficiency for OC when this EU is operating at its highest load or capacity; and
- iii. a statement certifying that the carbon adsorption system can achieve a 95% control efficiency for OC when this EU is operating at its highest load or capacity.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- b. the design analysis showing control device performance. The design analysis shall include specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts.

For the incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

For the carbon adsorption system, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream OC concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (5) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the vapor recovery system upstream from the ventilation header blower. This record shall be reviewed at least once per day.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (6) The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the temperature in the combustion chamber of the incinerator, as a control device for this EU. The temperature monitoring device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degree Celsius, or plus or minus 0.5 degree Celsius, whichever is greater. This record shall be reviewed according to the terms and conditions for EU N001 under a separate permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (7) The permittee shall perform quarterly, visual inspections of the vapor recovery system and control devices (incinerator and carbon adsorption system). The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.

If visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the vapor recovery system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. Exception for delay of repair would be allowed per 40 CFR 61.350.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

- (8) The permittee shall maintain records that contain the following information:
- a. a record of any time when the vapor recovery system was not in operation when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - b. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action taken, if any;
 - c. any record indicating that the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU. The record should include the date and duration, in minutes, explanation, and corrective action, if any;
 - d. any time when loading occurred without submerged fill. The record should include the date and an explanation;
 - e. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU. This record may be included in the monthly Leak Detection and Repair Program report; and
 - f. any record indicating the loading and unloading activities occurred at the same time within this EU. This record should include the date and an explanation.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. each day when the number of gallons loaded exceeded 44,000 gallons;
 - b. each day when the calculated loading loss value exceeded 41.9 pounds per 1,000 gallons;

- c. any time when the vapor recovery system was not in operation when waste was processed within this EU;
- d. any time when emissions in the vapor recovery system were not vented to either the incinerator and/or the carbon adsorption system when waste was processed within this EU;
- e. any record indicating the pressure within the vapor recovery system upstream from the ventilation header blower was at or above atmospheric pressure when waste was processed within this EU;
- f. each day when loading occurred without submerged fill;
- g. any record indicating detectable emissions from the vapor recovery system or from any equipment component of this EU; and
- h. any record indicating the loading and unloading activities occurred at the same time within this EU.

The written reports shall be submitted quarterly to the OEPA Northeast District Office, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

If no deviation occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during the quarter.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

OC emissions shall not exceed 3.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

- b. Emission Limitation:

OC emissions shall not exceed 15.1 TPY.

Applicable Compliance Method:

Compliance with the above emissions limitation is demonstrated when compliance with the hourly emissions rate is achieved.

c. Emission Limitation:

Fugitive OC emissions shall not exceed 33.7 TPY.

Applicable Compliance Method:

Compliance shall be assumed when the maximum loading throughput is less than 44,000 gallons per day, the calculated loading loss of the material handled each day of operation is equal to or less than 41.9 lbs/1,000 gallons, and the carbon adsorption system is demonstrated to recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

d. Emission Limitation:

The incinerator, as a control device for this EU, shall achieve a destruction efficiency of 99.99% for OC.

Applicable Compliance Method:

The incinerator is already required to achieve a destruction efficiency of 99.99% for Principle Organic Hazardous Constituents (POHCs) under a separate permit for EU N001. Comprehensive Performance Testing (CPT) established that the incinerator meets the required destruction efficiency of 99.99% for POHCs, which represents the more difficult OC to destroy. To remain in compliance with this requirement, the incinerator must operate within the operating parameter limits established during the CPT, or most recent testing, as stated in the terms and conditions for EU N001 under separate permit.

e. Emission Limitation:

The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater.

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping in section d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 02-20067]

g) Miscellaneous Requirements

(1) None.

APPENDIX A

Operating Parameter	Limit	Averaging Time	Pollutant	Citation
Minimum Feed Lance Atomization Pressure	30 psig	Instantaneous	DRE D/F Particulate SVM/LVM HCl/Cl ₂	63.1209(j) 63.1209(k) 63.1209(m) 63.1209(n) 63.1209(o)
Maximum Temperature at ESP inlet	425.2 °F	1-hour rolling	D/F	63.1209(k)
Maximum Pumpable Waste Feed	26,844 lb/hr	1-hour rolling	DRE D/F Particulate SVM/LVM HCl/Cl ₂	63.1209(j) 63.1209(k) 63.1209(m) 63.1209(n) 63.1209(o)
Maximum Total Waste Feed Rate	31,187 lb/hr	1-hour rolling	DRE D/F Particulate SVM/LVM HCl/Cl ₂	63.1209(j) 63.1209(k) 63.1209(m) 63.1209(n) 63.1209(o)
Minimum Kiln Temperature	1,686 °F	1-hour rolling	DRE D/F	63.1209(j) 63.1209(k)
Minimum SCC Temperature	1,693 °F	1-hour rolling	DRE D/F	63.1209(j) 63.1209(k)
Maximum Process Gas Flowrate	66,866 scfm	1-hour rolling	DRE D/F Particulate SVM/LVM HCl/Cl ₂	63.1209(j) 63.1209(k) 63.1209(m) 63.1209(n) 63.1209(o)
Minimum Carbon* Feed Rate (Location1)	27.0 lbs/hr	1-hour rolling	D/F	63.1209(k)
Minimum Carbon* Feed Rate (Location 2)	14.3 lbs/hr	1-hour rolling	D/F	63.1209(k)
Minimum Carbon Feed Pressure (Location 1)	3.0 psig	1-hour rolling	D/F	63.1209(k)

Minimum Carbon Feed Pressure (Location 2)	3.0 psig	1-hour rolling	D/F	63.1209(k)
Maximum Ash Feed Rate	9,713 lb/hr	12-hour rolling	Particulate	63.1209(m)
Minimum Ring Jet Pressure Drop	26.3 in WC	1-hour rolling	Mercury HCl/Cl ₂	63.1209(l) 63.1209(o)
Minimum Scrubber (1 st and 2 nd Packed Bed) Liquid Flow Rate	1,294.6 gpm	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Scrubber (Ring Jet) Liquid Flow Rate	509.9 gpm	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Scrubber (Ring Jet) Blowdown	19.0 gpm	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Scrubber (Ring Jet) Tank Level	1.7 feet	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Power Input to each ESP field	100 mA	1-hour rolling	Particulate SVM/LVM	63.1209(m) 63.1209(n)
Minimum Scrubber (1 st and 2 nd Packed Bed) Feed Pressure	Not required	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Scrubber (1 st and 2 nd Packed Bed) Pressure Drop	1.3 in WC	1-hour rolling	Mercury Particulate HCl/Cl ₂	63.1209(l) 63.1209(m) 63.1209(o)
Minimum Scrubber (3 rd Stage) Liquid pH	7.4	1-hour rolling	HCl/Cl ₂	63.1209(o)
Maximum Total Chlorine Feed Rate	1,913 lb/hr	12-hour rolling	SVM/LVM HCl/Cl ₂	63.1209(n) 63.1209(o)
Maximum Total Semivolatile Metals Feed Rate	150 lb/hr	12-hour rolling	SVM	63.1209(n)
Maximum Total Low Volatility Metals Feed Rate	400 lb/hr	12-hour rolling	LVM	63.1209(n)
Maximum Total Pumpable Low Volatile Metals Feed Rate	400 lb/hr	12-hour rolling	LVM	63.1209(n)
Maximum Total Mercury Feed Rate	0.4 lb/hr	12-hour rolling	Mercury	63.1209(l)
Maximum Containerized Feed Rate thru the Front Wall	4,645 lb/hr	1-hour rolling		
Single Container Maximum BTU	4.29 MMBtu	1-hour rolling		

Maximum Containerized Feed Rate from Bulk Solid Pits	0 lb/hr	1-hour rolling		
Maximum Non-Containerized Feed Rate from Bulk Solid Pits	11,243 lb/hr	1-hour rolling		
Maximum Non-Containerized Feed Rate from the Skip Hoist	2,862 lb/hr	1-hour rolling		
Minimum Stack Oxygen Concentration	12.4%	1-hour rolling		

- * Carbon type used shall meet or exceed the adsorption rate and sorbent parameters as identified below:
- Iodine N 800 mg/g (minimum)
 - Ash 15% by weight (minimum)
 - Moisture 4% maximum by weight as packed
 - Screen size 65-80%
 - U.S. sieve series through 325 mesh

APPENDIX B – FEED STREAM ANALYSIS PLAN

In accordance with the requirements of Clean Air Act regulations 40 CFR Part 63, Subpart EEE, also known as the hazardous waste combustor (HWC) MACT rule, Heritage Thermal Services (HTS) has developed this Feedstream Analysis Plan (FSAP) for the facility's compliance with the applicable regulations.

1.1 Regulatory Requirements

HTS is a commercial hazardous waste incinerator located in East Liverpool, Ohio. As such, the facility was designed to meet the requirements of 40 CFR 264.13 and OAC 3745-54-13. Air emissions from the HTS facility are regulated by the HWC MACT regulations, 40 C.F.R. 63.1200 *et seq.* The HWC MACT requires the development and implementation of a FSAP in 40 CFR 63.1209(c)(2), as provided below:

You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum:

(i) The parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section;

(ii) Whether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information;

(iii) How you will use the analysis to document compliance with applicable feed rate limits (e.g., if you blend hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how you will determine the pertinent parameters of the blended waste);

(iv) The test methods that you will use to obtain the analyses;

(v) The sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266, of this chapter, or an equivalent method; and

(vi) The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

The HWC MACT Rule requires that the FSAP address Hazardous Air Pollutants (HAPs) and specifies that any HAP analyses performed need only be done on the hazardous waste feedstreams. Additionally, the HWC MACT does not require sources to monitor for metals and chlorine in NG, process air and vapor recovery feedstreams. 40 CFR 63.1209(c)(5)

HTS recognizes that the reliability and accuracy of feedstream and processing data is important to maintain compliance with HWC MACT Rule. The objective of this plan is to describe the methods used to establish feedstream parameters regulated by MACT and to meet the regulatory objectives outlined above.

1.2 Revision History

This plan became part of the facility's operating record as of the MACT compliance date of September 30, 2003. Revision 1 of the FSAP was created on July 31, 2008 to reflect to the facility's name change to Heritage Thermal Services and add an explanation of how non-detect analysis will be handled. Revisions 2 and 3 were created to implement needed elements identified as missing during pre-MACT CPT review. New MACT operating limits were

placed into the FSAP with Revision 4 in July 2012 and again with Revision 5 in October 2015. Revision 6 of this document dated October 2018 was created to incorporate details that describe procedures for sampling and analysis of feedstreams which had only been previously incorporated by reference. Revision 7 is dated July 2019 and implemented procedures for addressing “non-detect” laboratory results.

2.0 PROGRAM IMPLEMENTATION

The waste feed materials handled by the facility cover a wide range of waste codes and hazardous constituents.

2.1 Operating Parameters

40 CFR 63.1209(c)(2)(i) requires that the FSAP specify “[t]he parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section.” The feed parameters (operating parameters related to feed rates) established to demonstrate compliance with the HWC MACT are identified in Table 2-1.

Table 2-1 – Waste Feed Operating Parameters

Waste Feed Parameter	Tag ID.	Units	Avg. Period
Maximum Pumpable Waste Feed Rate	WQI-9000T	lb/hr	1-hr
Maximum Total Waste Feed Rate	WQI-9000F	lb/hr	1-hr
Maximum Ash Feed Rate	WQI-9000AH	lb/hr	12-hr
Maximum Total Chlorine Feed Rate	WQI-9000CL	lb/hr	12-hr
Maximum Total Semivolatile Metals Feed Rate	WQI-9000SV	lb/hr	12-hr
Maximum Total Low Volatile Metals Feed Rate	WQI-9000LV	lb/hr	12-hr
Maximum Total Pumpable Low Volatile Metals Feed Rate	WQI-9000PLV	lb/hr	12-hr
Maximum Total Mercury Feed Rate	WQI-9000M	lb/hr	12-hr

HTS will analyze each feedstream, unless exempt as described on page 4, for the parameters described in Section 2.2, below, to ensure compliance with the limits associated with these operating parameters.

2.2 Obtaining Feedstream Parameter Information

40 CFR 63.1209(c)(2)(ii) requires that the FSAP specify “[w]hether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information.” HTS has developed and implemented a waste approval system to ensure that waste that is permitted to be incinerated be properly characterized and tracked through the incineration process. The approval system consists of two phases: (1) waste confirmation pre-acceptance procedures (as described below) that involve communications from the customer and occur prior to storage and/or treatment of the waste; and (2) waste confirmation fingerprint procedures undertaken by HTS that occur once the waste is received on site, but prior to acceptance of the waste by the facility. This approach to waste confirmation and acceptance enables the facility to adequately identify wastes to ensure efficient combustion and accurate tracking of constituent feed rates.

During the first phase in the waste approval system, before the waste generator sends waste to HTS, the waste generator provides HTS with a characterization of each waste stream on the Waste Profile Sheet (WPS). The WPS is used to provide brief descriptions of waste generating processes and physical characteristics, identify applicable hazardous waste codes, and provide the basis for hazard designation for the waste to be treated. In addition to information provided on the WPS, HTS requires the generator to provide a representative sample of the profiled waste stream, when possible. This sample, also known as the pre-acceptance sample, is analyzed by HTS prior to waste acceptance.

For certain exempt waste streams, HTS does not require a pre-acceptance sample during phase one of the waste approval process. Miscellaneous Special Wastes (MSW) are exempt from the pre- acceptance analysis. When a waste generator is requesting to ship MSW to the facility, it must provide other supporting documentation for waste characterization. This documentation may include material safety data sheets (MSDS), product ingredient information, and chemical analyses. HTS will also request additional information from the generator when the supporting documentation is insufficient or unclear.

MSW wastes are categorized as follows:

(1) Wastes of such a nature that their contents are sufficiently known with reliable chemical and physical detail that sampling and analysis is not warranted. Examples of Category 1 MSW can include:

- commercial products or chemicals that are off-specification, outdated, slightly contaminated, banned, discontinued, or otherwise determined to be unusable,
- consumer products which are readily available in commerce for household use, and/or which may be individually purchased and discarded by the general public,
- residues and debris from the cleanup of spills or releases of a single chemical substance or commercial product or a single waste,
- waste produced from the demolition or dismantling of industrial process equipment or facilities contaminated with chemicals from the process, and
- compressed gas or gas mixtures generated from a specific process that is well known and stable so as to generate a gas or gas mixture which is consistent in composition and well characterized in nature.

(2) Wastes of such physical nature that a sample which accurately represents the waste would be extremely difficult to obtain. Examples of Category 2 MSW can include:

- debris and personal protective equipment that are impractical to sample, and difficult to obtain accurate and representative analysis. Debris materials include any solid material exceeding a 60 mm particle size that is intended for disposal and that is a manufactured object, or plant or animal matter, or natural geologic material. Debris does not include any items such as intact batteries or electronic components,

- lab packs. Under this category, lab packs shall be defined as an outer container unit that contains inner containers of different chemical wastes intended for treatment or disposal. This shall include such multiple-waste containers generated from laboratories, research facilities, and other commercial and industrial activities where chemical wastes are generated, and
- RCRA empty containers of waste commercial products or chemicals.

(3) Wastes that present extraordinary health and safety hazards to facility personnel or pose an unusual sampling or analysis problem due to a low odor threshold. Examples of Category 3 MSW can include:

- Mixed Infectious Hazardous Waste,
- wastes that can react with moisture in the air (e.g. chlorosilanes, sodium, lithium), and
- Class 1A Flammables (e.g. diethyl ether).

In the second phase in HTS' waste approval system, HTS will follow procedures to ensure that waste arriving at the facility for incineration matches the generator's characterization and pre-acceptance sample, if required. This second phase in the waste approval system for wastes generated off-site consists of four steps: (1) WPS review, (2) supplemental physical/chemical analyses, (3) waste approval by the facility, and (4) waste approval acknowledgement by the generator.

The supplemental physical/chemical analyses that HTS performs in step 2 of the second phase of the waste approval system is referred to as the "fingerprint" analysis and will differ from procedures carried out during the first phase of the waste approval process. Most notably, HTS will perform sampling and analysis on certain MSW waste types which were not required to have a preacceptance sample during phase one. All wastes from Category-1 will be sampled and analyzed as described below except for compressed gas shipments which require analysis through a third-party laboratory.

Debris-type wastes from MSW Category-2 will also be sampled and analyzed in accordance with the "fingerprint" testing described in this section. MSW Category-2 lab pack waste will not be sampled but contain packing lists which identify the exact constituents of each container shipped. Chemists will evaluate the inventory of each container and assign specific constituent feed rates. RCRA-empty containers listed as MSW Category-2 wastes will not be sampled due to the negligible amount of waste in the container. RCRA-empty containers have less than one-inch of residue, no more than 3% of the container weight, or 0.3 % of the container's capacity when greater than 119 gallons in size.

HTS will not sample or analyze any MSW Category-3 materials due to the safety and health hazards that they present to facility personnel. In most cases, these types of waste contain a very specific list of chemicals with little deviation in concentration. As such, the information provided by the generator during phase one of the waste approval process (Safety Data Sheets, offsite laboratory data, etc.) is used for establishing accurate feed rates. Category-3 wastes make up a very small percentage of the total waste feeds at HTS.

Once waste arrives at the facility for incineration, HTS performs “fingerprint” testing, which consists of a subset of the parameters and methods identified in Table 2-2.

HTS evaluates each waste shipment for the following parameters related to incineration:

- Compatibility with other waste for which it will be commingled;
- Flashpoint (°F);
- Inorganic ions (Bromide, Chloride, Fluoride, Iodide, and Sulfur) as a percent;
- Heat value (btu/lb);
- Physical state;
- Water content (%);

- Metals content (ppm) - Analyses for metal content are mandatory during pre-acceptance analyses but will only be run during the fingerprint analyses when the waste has been characterized by the generator to contain metals or pre-acceptance testing determines it to be necessary. The analyses, and averages of these analyses, are used in the development of the daily burn plan for the Incineration System to ensure compliance with the demonstrated OPLs for mercury, SVM, and LVM. Waste streams that are not characterized to contain any metal constituents will not be analyzed for those constituents. During phase one of the waste approval process, HTS chemists review all waste characterizations and the processes generating the wastes to verify that no metal constituents are potentially expected in the waste shipments. If HTS determines or believes that the customer or generator has erred in their characterization, the waste will not be accepted until verification is provided. Feed rates for waste that have no metal constituents will be tracked as a zero value for those metals.
- FCC Catalyst indicators - This analysis is required for all refinery waste streams having the potential to contain FCC catalyst. The FCC catalyst indicators will vary depending on the type of catalyst the refinery is using. HTS will obtain a sample of spent catalyst to ensure that the indicator is known and HTS has the ability to detect the particular indicator. Any results above the acceptance limit, as established by HTS, will not be approved for processing through the incinerator;

- PCBs - These analyses are mandatory during the pre-acceptance phase for certain waste categories but are not mandatory for fingerprint analyses. Random PCB testing of liquid wastes with less than 50 percent water will be conducted once a week, one bulk liquid sample and one drum liquid sample.

After WPS review and fingerprinting, HTS communicates with the generator if there is a discrepancy between the WPS and the fingerprint analysis.

40 CFR 63.1209(c)(2)(i) requires the FSAP to specify “[t]he parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section.” 40 CFR 1209(c)(2)(iv) requires the FSAP to specify “[t]he test methods which you will use to obtain the analyses.” Table 2-2 lists the parameters for which HTS analyzes the pre-acceptance samples and lists the methods by which this analysis is performed.

Table 2-2 Parameters and Analytical Methods

Parameter	Method Description	Analytical Methods
Ash Content	Ash from Petroleum Products	EPA M 9040
Inorganic Anions	Anions in Water by Ion Chromatography (Fluorine, Chlorine, Bromine, Sulfur, Iodine)	EPA M 300 and ASTM D 4327
Heat Content	Bomb Combustion Method for Solid Waste	EPA M 5050 and ASTM D 12964
Inorganic Preparation Methods	Acid Digestion of Sediments, Sludges & Soils (Metals)	EPA M 3050
	Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy	EPA M 3005
	Microwave Assisted Acid Digestion of Aqueous Samples and Extracts (Metals)	EPA M 3015
	Microwave Assisted Acid Digestion of Sediments Sludges, Soils & Oils (Metals)	EPA M 3051
	Toxicity Characteristic Leaching Procedure (TCLP - Metals)	EPA M 1311
Paint Filter	Paint Filter Liquids Test	EPA M 9095A
Inorganic Analysis Procedures	Inductively Coupled Plasma-Atomic Emission (Metals – SVM/LVM) Spectroscopy	EPA M 6010
	Mercury in Liquid Waste (Manual Cold-Vapor Technique)	EPA M 7470
	Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)	EPA M 7471
pH	pH Electrometric Measurement	EPA M 9040
	Soil & Waste pH	EPA M 9045
Physical Description	Physical Description Screening Analysis in Waste	ASTM D 4979
Radioactivity Screen	Radioactivity	HTS Method W-1002
Specific Gravity	Specific Gravity Apparent of Liquid Industrial Chemicals	ASTM D 891
Organic Preparation	Automated Soxhlet Extraction (PCBs)	EPA M 3541
Organic Analysis	Polychlorinated Biphenyls (PCBs) by GC	EPA M 8082
Viscosity	Low Temperature Viscosity Measured by Brookfield Viscometer	ASTM D 2983-87
Water Content	Water in Crude Oils (Karl Fischer) Titration	ASTM D 4377

	Water in Paints & Paint Materials by Karl Fischer Method	ASTM D 4017
--	--	-------------

HTS will maintain records documenting compliance with these procedures as specified by regulation or facility permits.

2.3 Frequency of Feedstream Sampling and Analysis

40 CFR 63.1209(c)(2)(vi) requires that the FSAP specify “[t]he frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.” HTS will perform sampling and fingerprint analyses at the following frequencies:

2.3.1 For container shipments, at least 10 percent of the containers from each waste stream will be randomly selected for sampling upon delivery. A minimum of one container from each waste stream will be sampled. The designation of the containers to be sampled will be made by a random number generator function in the computer system that prints the labels for the containers. In the event of a system failure, the container(s) to be sampled will be designated by supervisory personnel.

2.3.2 For bulk solid and bulk liquid deliveries, a sample will be taken from each load. The analysis is performed and approved before the shipment is directed to an unloading station.

2.3.3 MSW-type wastes that were not sampled and analyzed during the preacceptance stage of wastestream approval, will be sampled upon arrival at HTS for incineration as described previously in this plan. For certain waste streams, such as those that present exposure hazards, it is not appropriate to visually inspect the contents of the containers or take samples. These waste streams present hazards upon opening the container. In addition, certain container types, such as a cylinder, may prevent a visual inspection to be performed. All other waste streams meeting MSW definitions will be visually inspected. Feed rate values for these types of waste will be determined using the concentrations established during the waste approval process.

HTS will maintain records documenting compliance with these procedures as specified by regulation or facility permits.

2.4 Feedstream Sampling

40 CFR 63.1209(c)(2)(v) requires the FSAP to specify “[t]he sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266, of this chapter, or an equivalent method.” Sampling is performed at the facility to confirm incoming waste shipments and wastes generated on site. When pre-acceptance samples are required, HTS refers waste generators to 40 CFR 261, Appendix I and OAC 3745-51-20, Appendix I for sample collection. These procedures ensure that a representative sample of the waste is obtained for analysis.

With respect to the samples collected by HTS, specific sampling procedures are dependent on both the nature of the material and the type of containers being used for shipping. To ensure the integrity and that each sample is representative, sampling and decontamination procedures based on SW-846 or equivalent methods will be employed. These procedures may be changed from time to time to reflect advancements in sampling methods and equipment, changes in regulations, etc.

Sampling of small containers (e.g., drums, pails, and other small units) varies with the nature of the waste material. For flowable materials, when appropriate, the sampling device to be used is either a Coliwasa or open tube sampler to draw a full vertical axis sample of the flowable material. For non-flowable wastes, an open tube sampler, scoop, or trier is used to obtain a sample.

Large containers and tanks for flowable materials and bulk containers for solid materials may be either stationary or mobile. Liquids are sampled with a Coliwasa or open tube sampler to obtain a vertical section. Light, dry powders and granules are sampled with an open tube sampler to obtain a vertical core. Heavier solids are sampled by scoop or trier, or by coring with an open tube sampler. In addition, where the tanks do not permit sampling from the top, the tank may be sampled from tank sampling ports or taps through tank inlets, outlets or re-circulating lines.

Bulk deliveries will normally be sampled from the top of the container. The number of samples and the device used are based upon the physical characteristics of the waste, and the access dimensions of the container.

HTS will maintain records documenting compliance with these procedures as specified by regulation or facility permits.

2.5 Establishing Feed Rate Compliance

40 CFR 63.1209(c)(2)(iii) requires that the FSAP specify “[h]ow you will use the analysis to document compliance with applicable feed rate limits ...” HTS uses a computerized database tracking system to calculate the feed rates of various parameters. This system stores data, such as parameter concentration from the profile, parameter concentration from analyzing a container’s sample, or an average from various analyses done on the waste stream. It also stores feed information. With this information, the real-time monitor segment of this database provides an instantaneous total reading of selected elements used to characterize the waste as it is fed to the incinerator.

The most accurate information available for each constituent fed to the incinerator will be used. For the purposes of the HWC MACT, these elements include ash content, total chloride content, arsenic, barium, beryllium, cadmium, chromium, lead, manganese, and mercury. A hierarchy, ranging from actual test results for a container, to the best available data supplied by the generator, is established for each container of waste. Elements in a waste will be tracked for each container, whether in a drum or a tank.

This hierarchy of data is arranged so that the most accurate data are used. Whenever there is uncertainty in the accuracy of the data, HTS uses the most conservative value.

The values that are used to calculate feed limits will be derived from one of the following methods, listed in order of the hierarchy of data used:

- Actual analysis from a container that was sampled
- An average of the containers that were sampled on a single shipment

- Statistical average from multiple shipments
- 'Conrange' estimated by the information provided on the WPS

In the cases where the laboratory analytical result is below the established reporting limit for the instrument or method, HTS tracking databases will utilize the minimum reporting limit value for that analysis rather than assuming a zero value. These reporting limits are set at a value 1.5 to 5 times higher than the starting concentration of a method detection limit (MDL) study. The MDL is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The reporting limit is a value at which the laboratory is confident in reporting the measured analyte concentration.

In the case where multiple containers, such as drums, boxes, and small containers, of the same waste profile are delivered in a shipment, the elements are characterized by using the average of the fingerprint results for the same waste profile. This procedure is not applied to bulk liquid or bulk solid shipments as these containers are individually sampled and tested.

HTS maintains a computerized tracking system to manage the content of tanks used to store waste for incineration. Each tank has a unique ID and can have unique 'rules' that determine when a waste stream no longer exists in a tank. It is necessary to have unique rules for these tanks because some tanks manage only bulk shipment material (e.g. tanker trucks), while others manage only containerized materials, and still other tanks manage both bulk and containerized wastes.

A tank's content is affected any time material is added to or subtracted from the tank. The computerized inventory tracking system tracks both the individual volumes of the feed streams in the tank and the percentage of the tank the feed stream represents. For a feed stream to be eliminated from the tank's content, the feed stream must be less than a set volume of the tank and a set percentage of the tank, referred to as the 'rules' for the tank.

The tank rules allow the computerized inventory tracking system to calculate the percentage of each element in each tank by using the tank content information and the concentration information for each element in each waste stream.

Calculation

$$Te \text{ (Tank Element)} = Tw \times Xe$$

Where:

Xe = concentration of the element in a waste stream

Tw = concentration of the waste stream in the tank

Te = concentration of the element in the tank

HTS uses a digital control system (DCS) to control the operations at the facility. The DCS receives electronic signals from various transmitters to record and control flow. The DCS system processes the signals and sends flow data to other data management systems that update the computerized inventory tracking system flow information.

Feed rates of individual elements are determined by using the flow information from the various feed systems and the element information from the computerized inventory tracking system. A total feed rate can be calculated for each element.

From the tank rules, the system calculates the % of each element in each tank by using the tank content information and the concentration of the elements in each waste stream.

Calculation

$$Fe \text{ (Feed Element)} = F \times Te$$

Where:

F = Feed rate from the tank

Te = concentration of an element in the tank

Fe = represents the Feed Rate of the element

The sum of element feed rates from each feed system is used to evaluate compliance with feed restrictions. HTS will maintain records documenting compliance with these procedures as specified by regulation or facility permits.

2.6 Feed Rate Calculations and Documentation

40 CFR 63.1209(c)(4)(iii) requires the source to “calculate and record the mass feed rate of the parameter per unit time.” The inventory tracking system receives data from the facility’s information management system where waste approval and laboratory data is stored. Element concentrations for all feedstreams are calculated in a computerized database to monitor incinerator feed rates.

HTS calculates feed rates to the incinerator in accordance with the following procedure. All incinerator feed data (i.e., low volatile metals, semi-volatile metals, mercury, total pumpable waste, total solid waste, total chlorine, and ash) are processed in computerized tracking system. The tracking system will calculate the one-minute average on a continuous basis. The one-minute average will be extrapolated, where applicable, to calculate the one-hour and twelve-hour averages required for feed rate compliance.

HTS will maintain records documenting compliance with these procedures as specified by regulation or facility permits.

3.0 PERFORMANCE TESTING

During performance tests conducted on the incineration system in accordance with the HWC MACT regulations, HTS will deviate from the general requirements of the FSAP. The MACT CPT and Confirmatory Performance Testing (CfPT) require more frequent sampling and additional analysis than that previously specified in this plan. As such, HTS will conduct these activities as described in the following sections. Any procedures not addressed in this section will remain consistent with those found in previous sections of the FSAP.

3.1 Sampling

3.1.1 Containerized and Bulk Solid Wastes

Waste materials that will be incinerated during testing will be sampled more frequently than described in the FSAP. Samples of each container that will be charged to the incinerator's front wall feed chamber will be obtained after the container had gone through all feed preparations. Sampling will be performed in accordance with the applicable sampling procedures in SW-846 or equivalent methods. These samples will be delivered to the HTS laboratory for analysis.

All bulk solid waste materials to be charged to the incinerator through the bulk solid feed chamber will be sampled prior to its placement in the bulk solid feed pits. Sampling will be performed in accordance with the applicable sampling procedures in SW-846 or equivalent methods. These samples will be delivered to the HTS laboratory for analysis.

3.1.2 Bulk Liquid and Tank Wastes

Bulk liquid wastes that will be charged to the incinerator directly from the shipping container or from a holding tank will be sampled continuously during testing at 30-minute intervals. Sampling will be performed in accordance with the applicable sampling procedures in SW-846 or equivalent methods. These samples will be delivered to the HTS laboratory for analysis.

3.1.3 Process Sampling

Samples from process equipment associated with the incineration train are not required but may be taken during the test. Samples from these areas may include the four-stage scrubber, the neutralization system, and the slag quench tank. These samples will be delivered to the HTS laboratory and held for diagnostic testing.

3.1.4 Residual Sampling

Samples of the incinerator's slag and ash residuals will be taken in accordance with the applicable sampling procedures in SW-846 or equivalent methods. These samples will be delivered to the HTS laboratory for analysis.

3.2 Analysis

3.2.1 Waste Materials

Waste samples taken as described in Section 3.1 will be analyzed by the HTS laboratory for the parameters listed in Table 3-1. Bulk liquid and tank samples may be composited prior to laboratory analysis.

3.2.2 Process Sampling

Process samples will be analyzed in the HTS laboratory for parameters selected by HTS management and technical personnel. These samples will only be analyzed if needed to help diagnose problems that may occur during testing. Analysis parameters will be determined based on operational needs.

3.2.3 Residual Sampling

All slag and ash residual samples from the incinerator will be analyzed by the HTS laboratory to determine compliance with the applicable treatment standards prior to land disposal. Analysis will be performed in accordance with the applicable methods and procedures listed in Table 2-2. HTS may also use these samples to diagnose operational problems that arise during performance testing. Additional analysis parameters will be determined based on operational needs.

3.3 Documentation

HTS will assemble all documentation of waste sampling and analysis and submit the data as a supplement to the NOC and performance test report.

Table 3-1 Laboratory Analysis Parameters for CPT/CfPT Samples

Parameter	Method Description	Analytical Methods
Ash Content	Ash from Petroleum Products	EPA M 9040
Inorganic Anions	Anions in Water by Ion Chromatography (Chlorine)	EPA M 300 and ASTM D 4327
Heat Content	Bomb Combustion Method for Solid Waste	EPA M 5050 and ASTM D 12964
Inorganic Preparation Methods	Acid Digestion of Sediments, Sludges & Soils (Metals)	EPA M 3050
	Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy	EPA M 3005
	Microwave Assisted Acid Digestion of Aqueous Samples and Extracts (Metals)	EPA M 3015
	Microwave Assisted Acid Digestion of Sediments Sludges, Soils & Oils (Metals)	EPA M 3051
	Toxicity Characteristic Leaching Procedure (TCLP - Metals)	EPA M 1311
Inorganic Analysis Procedures	Inductively Coupled Plasma-Atomic Emission (Metals) Spectroscopy	EPA M 6010
	Mercury in Liquid Waste (Manual Cold-Vapor Technique)	EPA M 7470
	Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)	EPA M 7471
Water Content	Water in Crude Oils (Karl Fischer) Titration	ASTM D 4377
	Water in Paints & Paint Materials by Karl Fischer Method	ASTM D 4017

APPENDIX C – FEED BALANCING STRATEGY

1. Sampling and Analysis
 - a) HTS will analyze 100% of the deliveries of soil and other high ash (>75% solids by weight) bulk solid wastes for elemental iron, potassium, sodium and lithium content (the “elements of interest”). HTS will analyze all containers, with exceptions for safety (i.e., sampleable containers).
 - b) HTS will also analyze 100% of the sampleable bulk and drummed liquid materials that will be introduced to the rotary kiln through a lance. These samples will be analyzed for the elements of interest.
 - c) Templates requiring the supplemental waste analysis necessary to implement this Protocol are in the HTS laboratory information system to provide data regarding the contents of the elements of interest on a load by load and container by container level so that feed balancing can be developed using the on-hand inventory data.
2. Internal System Planning Tools
 - a) Kiln Scheduler Modifications

The existing scheduler programming for the kiln includes the elements of interest. The elements of interest will allow the production planning personnel to have visibility into relative quantities planned from waste inventory.
 - b) Control Room Tracking Tools

The control room tracking tools include totalizing tools that indicate the best operable range for each of the elements of interest and will be available to the control room operators.
3. Feed Balancing

HTS personnel will execute the following steps to avoid large quantities of fluxes being fed in a slug:

 - a) Continued Dataset Development

HTS will institutionalize the sample, analysis and data accumulation process for data on the elements of interest in its inventory tracking and management system, as discussed in Section 1, above. As this data is produced, it will be reviewed by facility Materials Management and Production Control personnel on an ongoing basis to assess the relative quantities of the respective elements of interest on site at any point in time.
 - b) Feed Balancing Strategy

Using the historical feed data review as an initial starting point, and as further data is available for the facility, HTS will implement and update as necessary a Feed Balancing Strategy to spread the available elements out over a one week planning timeframe.

The Feed Balancing Strategy will be dynamic. As new wastes are received at the plant and analyzed, they will be incorporated into the planning process with the objective being a balanced feed of these elements as available.

APPENDIX D – SUPPLEMENTAL WASTE ANALYSIS PROTOCOL

This Supplemental Waste Analysis Protocol (SWAP) shall be used in conjunction with the most current versions of the Waste Analysis Protocol (WAP) and the Standard Operating Procedures (SOPs). Where any requirements of this Protocol conflict with the WAP or SOPs, this Protocol shall govern.

1. Visual Inspection and Sampling of Non-Bulk Wastes

a) HTS will conduct a visual inspection of non-bulk waste containers of 75% of all containers, with exceptions for safety. Visual inspection of each container's physical contents will be noted as an inspection code in operating systems and tied specifically to that container. HTS will compare these codes to the inspection code applied to the waste stream at the initial pre-acceptance profile stage. Inspection codes that do not match what was profiled will be flagged for hold by the operating system and reviewed by plant personnel for processing instructions and/or off-specification issues. HTS shall program its operating system to notify personnel which containers are to be evaluated.

b) Sampling - For those waste streams that are deemed sampleable, additional samples will be pulled from inspected container shipments of the same waste stream, excluding certain waste types already excluded from sampling due to safety and other considerations.

(1) Examples of waste excluded from sampling:

Wastes excluded from sampling include, but are not limited to consumer products, debris-chunks of contaminated metal, concrete, glass, rags or other soft debris, Labpacks (i.e. waste generated by laboratories), and empty drums with chemical residual.

(2) Individual Sampling - HTS will take samples from 10% of all non-bulk waste containers and from at least one container in each waste stream. These samples will be individually processed pursuant to Section C below (Individual Sampling).

(3) Composite Sampling - HTS will take at least one sample from each container inspected pursuant to Paragraph 1 above with deviations based only on safety or ability to sample. These samples will be composited with each other and subject to sampling pursuant to Section C below (Composite Sampling).

2. Container Receiving Process

a) Following manifest verification and receipt of container deliveries, HTS container receiving personnel will follow the following procedures in receiving container shipments:

(1) Unload containers from van trailers.

(2) Verify piece count and container type with the manifest.

(3) Place each container on sampling conveyors and/or sampling areas.



- (4) Weigh each container.
- (5) Match generator's label information with approved waste stream and manifest.
- (6) Apply HTS label to each container¹.
- (7) Open containers subject to visual inspection pursuant to Section 1.a) above, except for those labeled "Do Not Open," and visually inspect contents.
- (8) Enter the physical appearance (inspection code) for the container in the operating system.
- (9) Pull samples from containers in accordance with the sampling requirements set forth in Section 1.b) above, except for those labeled "Do Not Open" or "Do Not Sample".
- (10) Place pulled samples in sample containers (one container for each sample pulled) that are labeled with the container's unique identification number and corresponding barcode.
- (11) Deliver samples to the lab for fingerprint testing, as set forth in Section 3 below.
- (12) Store the containers while testing pursuant to Section 3 below is performed (while in storage, the operating system puts the containers on hold).

3. Testing of Container Samples

HTS Laboratory personnel will comply with the following procedures in testing container samples:

- a) Log receipt of container samples into the laboratory information management system by scanning the unique barcode label affixed to each sample bottle. This ties the waste stream profile, unique container identification number and sample together in the information system.
- b) Inspect the labels to determine which samples are subject to Individual Sampling and which are subject to Composite Sampling.
- c) Those samples that are subject to Individual Sampling pursuant to Section 1.b)(2) above will be tested and logged following the WAP. Each sample that is subject to Individual Sampling in the WAP will be tested individually.
- d) Composite Sampling.

¹ The operating system will generate labels for each container received in a shipment. Four different types of labels will be generated. One type is for the 10% Individual Sampling containers. These are randomly selected by the operating system. The second type will be for the additional samples. There will be an identifier on the labels so it is clear to the laboratory which samples will be subject to Individual Sampling and which can be composited prior to testing (Composite Sampling). The third type will be for waste streams that are to be opened and visually inspected but not sampled. The fourth type will be for waste streams that are unsafe to sample. These will not be opened.



(1) Samples subject to Composite Sampling pursuant to Section 1.b)(3) above will be visually inspected. Those samples from the same shipment that are of the same physical state and match the waste stream profile-identified physical state will be composited into one sample (composite sample). If different physical states are observed within the same shipment and waste stream, then those samples within the same waste stream that have the same non-conforming physical state will be composited and tested as described above.

(2) The composite samples will be analyzed using the same tests as performed in the Individual Sampling (i.e., fingerprint samples).

- e) HTS personnel will enter all sampling results into the laboratory information management system.
- f) A chemist will review all sampling results. Where the sampling results do not conform to the waste stream profile, such wastes will be placed on hold in the operating system and will be followed up by the off-specification coordinator to resolve with the generator.
- g) Release only those wastes for processing where the sample(s) conform(s) to the waste stream profile for the containers from which the sample(s) was/were taken.

4. Feed of Container Contents into Incineration Process.

Production personnel will feed the containers into the incineration process as follows:

- a) HTS production personnel will use sampling results in the laboratory information management system and visual inspection information to determine the most appropriate processing method by individual container.
- b) Process conforming containers in accordance with the processing instructions that HTS developed for the waste stream. These types of instructions tell how to achieve safe and compliant incineration. These types of instructions may include but are not limited to:
 - o Pumping liquids out of the container into a tank.
 - o Pumping liquids out of the container directly into the kiln. In this case, pump feed rates may be identified based on constituents.
 - o Pouring liquids into smaller containers for feeding these smaller containers and their contents directly into the kiln. In this case, weights and/or volumes will be specified for each container feed. In addition, instructions to solidify contents with specific solidification agent may also be specified.
 - o Dumping solids out of the containers for feeding into the bulk solids pits prior to being fed into the kiln.
 - o Pumping liquids out of the container into either a tank or directly into the kiln and feeding a solid heel left in the container into the kiln.
- c) Process non-conforming containers once the off-specification coordinator has resolved the non-conformance with the generator. These containers may be released from hold only after the discrepancy has been addressed, for example by developing different processing instructions for



**Environmental
Protection
Agency**

Final Title V Permit
Heritage Thermal Services
Permit Number: P0134491
Facility ID: 0215020233
Effective Date: 11/19/2024

those non-conforming containers based on the fingerprint results and/or physical appearance. Any new processing instructions will be entered into the operating system specific to that container or containers so that production personnel will have this information for processing.



APPENDIX E – SYNCHRONIZATION

1. Synchronization

HTS will:

- a) Ensure that all of its measurements and recording systems at the facility are synchronized to the same date and time.
- b) Date and time stamp Exception Reporting Data with the accurate date and time.
- c) Calculate time lags between system measurements (e.g., temperatures in the SCC versus THC at the stack) due to the process or to system response times on at least an annual basis or more frequently if warranted by changes in the process or system response times.
- d) Retain the information calculated pursuant to the above until HTS calculates a subsequent system measurement time lag.