



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

12/18/02

**CERTIFIED MAIL**

**RE: Final Title V Chapter 3745-77 permit**

02-78-00-0648  
ISG Warren Inc.  
Doug P Hayes  
2234 Main Ave  
Warren, OH 44481

Dear Doug P Hayes:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

If you have any questions, please contact Northeast District Office.

Very truly yours,

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

cc: Northeast District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: <b>12/18/02</b>	Effective Date: <b>01/08/03</b>	Expiration Date: <b>12/18/07</b>
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This document constitutes issuance of a Title V permit for Facility ID: 02-78-00-0648 to:

ISG Warren Inc.  
3100 East 45th Street  
Cleveland, OH 44127

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

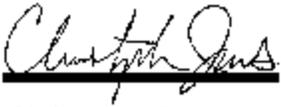
B001 (Standby Boiler) Backup boiler - 99.9 MMBtu/hr	P801 (Light Oil Recovery System) The By-products Plant Light oil recovery system includes process vessels, storage tanks, light oil sumps, pumps, valves, and sampling connectors in benzene service as regulated under 40 CFR 63 Subpart L	T003 (Tar Tank T-3 / Back-up ammonia liquor tank) Tar Tank #3, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.
B002 (Chemico Landbase Water Heater) 12 MMBtu/hr	P802 (Tar Recovery System) Tar Recovery system includes Tar Decanter #1,#2,#3, flushing liquor collection tanks, exhauster drain seal pots (#1,#2,#3).	T004 (Tar Tank T-4 / Back-up ammonia liquor tank) Tar Tank #4, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.
B003 (Chemico Landbase Water Heater) 12 MMBtu/hr	P901 (Coke handling ) Coke handling	T011 (TONH3-1 Wastewater Treatment Tank (300,000 gallon)) "Un-stripped" ammonia wastewater treatment storage tank, fixed roof, equipped with vapor collection system (300,000 gallons).
B901 (No. 4 Coke oven battery) No. 4 Coke oven battery, including charging, doors, lids, offtakes, pushing, combustion stack, and igniters.	T001 (Tar Tank T-1/ Back-up ammonia liquor tank) Tar Tank #1, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.	T012 (TONH3-2 Wastewater Treatment Tank (300,000 gallon)) "Unstripped" ammonia wastewater treatment storage tank, fixed roof, equipped with vapor collection system (300,000 gallons)..
F001 (Coal handling and processing) Coal loading, unloading and processing	T002 (Tar Tank T-2/ Back-up ammonia liquor tank) Tar Tank #2, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.	
F002 (Paved and unpaved roadways) Paved and unpaved roadways and parking lots. Former F002 source ID (coke storage piles) combined with source ID Z002 to form ID F003 for coal and coke Aggregate storage piles.		
P001 (No. 4 Coke oven battery quenching station) No. 4 Coke oven battery quenching station		
P002 (Desulfurization Plant) Desulfurization Plant, Tail Gas Emissions (P002)		

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

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

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in black ink, appearing to read "Christopher Jones", is written over a solid black horizontal line.

Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

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

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*
- c. The permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*
  - ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**
    - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six

months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

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

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

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

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

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

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

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

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

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

report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."  
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).  
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

**3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.  
(Authority for term: OAC rule 3745-77-07(A)(4))

**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.  
(Authority for term: OAC rule 3745-77-07(A)(5))

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.  
(Authority for term: OAC rule 3745-77-07(A)(6))

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and

reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

#### **7. Fees**

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

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

#### **8. Marketable Permit Programs**

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

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

#### **9. Reasonably Anticipated Operating Scenarios**

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

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

#### **10. Reopening for Cause**

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

## **11. Federal and State Enforceability**

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

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

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
  - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

### **13. Permit Shield**

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

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

### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification

under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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

## **15. Emergencies**

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

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

## **16. Off-Permit Changes**

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

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

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

(I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

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

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

**17. Compliance Method Requirements**

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

*(This term is provided for informational purposes only.)*

**18. Insignificant Activities**

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

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

**19. Permit to Install Requirement**

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

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

**20. Air Pollution Nuisance**

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

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

**B. State Only Enforceable Section**

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

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee

shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

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

**3. Inspections and Information Requests**

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

**4. Scheduled Maintenance/Malfunction Reporting**

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

**5. Permit Transfers**

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

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

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

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

1. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #49, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.
2. National Emission Standard for Benzene Waste Operations [40 CFR Part 61, Subpart FF]

The permittee shall repeat the determination of total annual benzene quantity from the facility whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/year or more.

**B. State Only Enforceable Section**

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

F003 Coal and Coke Storage Piles  
G001 Combined Gasoline and Diesel Dispensing Facilities  
P003 Ammonia Sulfate System  
T007 15,000-gallon Sulfuric Acid Storage Tank  
T008 20,000-gallon Sulfuric Acid Storage Tank  
T009 12,000-gallon Bulk Density Oil Tank North  
T010 10,900-gallon Bulk Density Oil Tank South  
T013 Weak Ammonia Wastewater Storage Tank (300,000 gallons)  
Z007 Hydraulic Fluid (Tank Emissions and Leaks)  
Z009 Wastewater Treatment Plant  
Z010 Hot Oil Package Boiler  
Z011 Electricians' Generators at 2812  
Z012 Second Diesel Generator at Boilerhouse  
Z014 Diesel Operated Flushing Liquor Pump  
Z015 Welding (maintenance purposes)  
Z016 Diesel Generator for Nitrogen System  
Z017 Grinding  
Z018 Kerosene Torpedo Heaters  
Z019 Natural Gas Fired Emergency Generator  
Z020 Natural Gas Fired Space Heaters  
Z021 Parts Cleaning Stations (3)  
Z022 Exhauster Building Condensate Sump  
Z023 Booster Condensate Sump  
Z024 Miscellaneous Non-Contact Cooling Towers  
Z025 Bleeder Stack Sump  
Z026 Booster Seal Pit  
Z027 Misc. Gas Condensate Tanks  
Z028 Crystallizer Water Tank  
Z029 Mother Liquor Tank  
Z031 Crystallizer Spare Tank  
Z032 Youngstown Tank  
Z033 #1 Spare Tank  
Z034 Ammonia Sulfate Circulation Tank  
Z035 Ammonia Sulfate Tar Skimmer  
Z036 Filtrate Tanks  
Z037 Sulfate Condensate Sump

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

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Standby Boiler (B001)  
**Activity Description:** Backup boiler - 99.9 MMBtu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
99.9 MMBtu/hr natural gas & coke oven gas fired boiler	OAC rule 3745-17-10 (B)(1)	0.020 pound of particulate emissions per MMBtu actual heat input
	OAC rule 3745-17-07 (A)	Except as otherwise specified in paragraphs (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the boiler stack shall not exceed twenty percent opacity as a six-minute average.
	OAC rule 3745-31-05 (PTI No. 02-4401)	0.10 pound of sulfur dioxide per MMBtu actual heat input.
		0.10 pound of nitrogen oxides per MMBtu actual heat input.
		See Section A.II.1.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1), OAC rule 3745-17-07(A), and 40 CFR, Part 60, Subpart Dc.
		See Section A.I.2.a.
	40 CFR, Part 60, Subpart Dc	fuel usage record keeping requirements (see Section A.III.1)
	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 63, Subpart DDDDD	See Section A.I.2.b.

## **2. Additional Terms and Conditions**

- 2.a.** The daily average concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).
- 2.b.** U.S. EPA anticipates proposing the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers and Process Heaters, at 40 CFR, Part 63, Subpart DDDDD, in November of 2002. When the NESHAP is promulgated, the facility will be subject to the rules as an existing major source with a compliance date as specified in the NESHAP. See Sections A.IV.5, A.IV.6, and A.IV.7 for required reporting pertaining to these requirements.

## **II. Operational Restrictions**

1. This emissions unit shall be limited to a total heat input of 780,000 MMBtu per year.
2. The permittee shall burn only natural gas and/or coke oven gas in this emissions unit.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain daily records of the following information for this emissions unit:
  - a. the natural gas usage per day (cubic feet); and
  - b. the coke oven gas usage per day (cubic feet).
2. The permittee shall maintain monthly records of the total heat input to this emissions unit (MMBtu).
3. The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and total reduced sulfur monitoring systems required for the desulfurization plant (emissions unit P002) in accordance with Section A.III.1 of these terms and conditions for emissions unit P002.
4. For each day during which the permittee burns a fuel other than natural gas or coke oven gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each 3-hour block of time during which the concentration of hydrogen sulfide in the desulfurized coke oven gas burned in this emissions unit and the desulfurization tail gas, combined, exceeded 35 grains per 100 dscf of coke oven gas produced, and the actual hydrogen sulfide content for each such day.
2. The permittee shall submit deviation (excursion) reports that identify each period of time during which a fuel other than natural gas or coke oven gas is burned in this emissions unit in violation of the operating restriction specified above.
3. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.
4. The permittee shall submit an annual report which provides a summary of the total annual heat input to this emissions unit (MMBtu). This report shall be submitted by February 15 of each year for the total heat input data recorded during the previous calendar year.

#### **IV. Reporting Requirements (continued)**

- 5.** The permittee will be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers and Process Heaters, at 40 CFR, Part 63, Subpart DDDDD. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR, Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts: The deadline to submit the Part I application as specified in 40 CFR Part 63.53 was May 15, 2002.
- 6.a.** If the final MACT Standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard, as specified by the settlement between U.S. EPA and Sierra Club. It must contain the information in paragraphs (i) through (vi) of this section.
- i. For a new affected source, the anticipated date of startup of operation.
  - ii. The hazardous air pollutants emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for hazardous air pollutants from the affected source.
  - iii. Any existing federal, State, or local limitations or requirements applicable to the affected source.
  - iv. For each affected emission point or group of affected emission points, an identification of control technology in place.
  - v. Information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor.
  - vi. Any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A or 40 CFR, Part 63.
- 6.b.** The Part II application for a MACT determination may, but is not required to, contain the following information:
- i. Recommended emission limitations for the affected source and support information. The permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation.
  - ii. A description of the control technologies that would be applied to meet the emission limitation including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied.
  - iii. Relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.
- 7.** If the NESHAP is promulgated before May 15, 2004, the facility will be subject as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:

#### **IV. Reporting Requirements (continued)**

- 7.a.** Within 120 days after promulgation of 40 CFR, Part 63, Subpart DDDDD, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
- i. the name and mailing address of the permittee;
  - ii. the physical location of the source if it is different from the mailing address;
  - iii. identification of the relevant MACT standard and the permittee's compliance date;
  - iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant; and
  - v. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
- 7.b.** Within 60 days following completion of any required compliance demonstration activity specified in the 40 CFR, Part 63, Subpart DDDDD, the permittee shall submit a notification of compliance status that contains the following information:
- i. the methods used to determine compliance;
  - ii. the results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - iv. the type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR, Part 63, Subpart DDDDD;
  - v. an analysis demonstrating whether the affected source is a major source or an area source;
  - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method; and
  - vii. a statement of whether or not the permittee has complied with the requirements of 40 CFR, Part 63, Subpart DDDDD.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

## V. Testing Requirements (continued)

### 1.a. Emission Limitation:

0.020 pound of particulate emissions per MMBtu actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.098 million cubic feet / hr) by the emission factor from AP-42, Fifth edition, Section 1.4, July' 98 version for natural gas combustion (1.9 lbs particulate / million cubic feet), and dividing by the maximum hourly heat input capacity of the emissions unit (99.9 MMBtu/hr). For the use of coke oven gas, compliance is based upon the AP-42 emission factor ( AP-42, Fifth edition, Section 12.5, October' 86 version ) for coke oven gas of (0.012 lb particulate / MMBtu). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC rule 3745-17-03(B)(9).

### 1.b. Emission Limitation:

0.10 pound of sulfur dioxide per MMBtu actual heat input

Applicable Compliance Methods:

Compliance with 0.10 pound of sulfur dioxide per MMBtu actual heat input shall be determined as follows: for the use of natural gas, compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.098 million cubic feet / hr) by the emission factor from AP-42, Fifth edition, Section 1.4, July' 98 version for natural gas combustion (0.6 lb sulfur dioxide / million cubic feet), and dividing by the maximum hourly heat input capacity of the emissions unit (99.9 MMBtu/hr). For the use of coke oven gas, compliance shall be based upon the LTV historical emission factor for coke oven gas of 0.093 lb sulfur dioxide / MMBtu. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 6 and 6C and the procedures in OAC rule 3745-18-04.

### 1.c. Emission Limitation:

0.10 pound of nitrogen oxides per MMBtu actual heat input

Applicable Compliance Method:

Compliance with the limit of 0.10 pound of nitrogen oxides per MMBtu actual heat input shall be determined as follows: for the use of natural gas, compliance shall be based upon an average NOx emission factor of 0.0475 lb / MMBtu, which was developed from an emission test conducted on August 21, 1991. For the use of coke oven gas, nitrogen oxides emissions are assumed to be lower from burning coke oven gas than from burning natural gas. If additional tests are required, Method 7E of 40 CFR Part 60, Appendix A, shall be used to demonstrate compliance. Alternative USEPA-approved test methods may be used with prior approval from the Ohio EPA.

### 1.d. Emission Limitation:

Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the boiler stack shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method(s):

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1), if required by the Ohio EPA.

## **VI. Miscellaneous Requirements**

1. The permittee has submitted a Permit to Install (PTI) application to modify the Permit to Install (#02-4401) for this emissions unit. The existing PTI for this emissions unit gives an emission limitation of 0.10 pound SO<sub>2</sub> per MMBtu. This limit was established based upon coke oven gas from the desulfurization plant with an average H<sub>2</sub>S content of 18 grains per 100 cubic feet of gas. Since the current SO<sub>2</sub> limit in the existing PTI was based on an average H<sub>2</sub>S content, the permittee may exceed the SO<sub>2</sub> limit on an hourly basis if the H<sub>2</sub>S content exceeds 18 grains per 100 cubic feet of gas. Therefore, the existing PTI must be modified to enable the permittee to burn coke oven gas with an H<sub>2</sub>S content consistent with the maximum H<sub>2</sub>S content of coke oven gas from the desulfurization plant.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Chemico Landbase Water Heater (B002)  
**Activity Description:** 12 MMBtu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 MMBtu/hr natural gas and coke oven gas fired water heater	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions per MMBtu actual heat input.
	OAC rule 3745-17-07 (A)	Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the water heater stack shall not exceed twenty percent opacity as a six-minute average.
	OAC rule 3745-31-05 (PTI No. 02-171)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-10(B)(1) and OAC rule 3745-17-07(A).
		See Section A.I.2.a below.

##### 2. Additional Terms and Conditions

- 2.a. The daily average concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or coke oven gas in this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

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

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or coke oven gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the concentration of hydrogen sulfide in the desulfurized coke oven gas burned in this emissions unit and the desulfurization tail gas, combined, exceeded 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day and the actual hydrogen sulfide content for each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

- 1.a. Emission Limitation:

0.020 pound of particulate emissions per MMBtu actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.012 million cubic feet / hr) by the emission factor from AP-42, Fifth edition, Section 1.4, July' 98 version for natural gas combustion (1.9 lbs particulate / million cubic feet), and dividing by the maximum hourly heat input capacity of the emissions unit (12 MMBtu/hr). For the use of coke oven gas, compliance shall be based upon the AP-42 emission factor ( AP-42, Fifth edition, Section 12.5, October' 86 version ) for coke oven gas of (0.012 lb particulate / MMBtu). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC rule 3745-17-03(B)(9).

- 1.b. Emission Limitation:

Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the water heater stack shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method(s):

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1), if required by the Ohio EPA.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Chemico Landbase Water Heater (B003)

**Activity Description:** 12 MMBtu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 MMBtu/hr natural gas and coke oven gas fired water heater	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions per MMBtu actual heat input.
	OAC rule 3745-17-07 (A)	Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the water heater stack shall not exceed twenty percent opacity as a six-minute average.
	OAC rule 3745-31-05 (PTI No. 02-171)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-10(B)(1) and OAC rule 3745-17-07(A).
		See Section A.I.2.a below.

##### 2. Additional Terms and Conditions

- 2.a. The daily average concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

##### II. Operational Restrictions

1. The permittee shall burn only natural gas and/or coke oven gas in this emissions unit.

##### III. Monitoring and/or Record Keeping Requirements

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

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or coke oven gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the concentration of hydrogen sulfide in the desulfurized coke oven gas burned in this emissions unit and the desulfurization tail gas, combined, exceeded 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day and the actual hydrogen sulfide content for each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a. Emission Limitation:

0.020 pound of particulate emissions per MMBtu actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.012 million cubic feet / hr) by the emission factor from AP-42, Fifth edition, Section 1.4, July' 98 version for natural gas combustion (1.9 lbs particulate / million cubic feet), and dividing by the maximum hourly heat input capacity of the emissions unit (12 MMBtu/hr). For the use of coke oven gas, compliance shall be based upon the AP-42 emission factor ( AP-42, Fifth edition, Section 12.5, October' 86 version ) for coke oven gas of (0.012 lb particulate / MMBtu). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC rule 3745-17-03(B)(9).

- 1.b. Emission Limitation:

Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the water heater stack shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method(s):

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1), if required by the Ohio EPA.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Coke oven battery (B901)

**Activity Description:** No. 4 Coke oven battery, including charging, doors, lids, oftakes, pushing, combustion stack, and igniters.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
charging operations	40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iv)]	See Section A.I.2.b.
	OAC rule 3745-31-05 (PTI No. 02-171)	The emission limitation specified in the PTI is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iv)].
	OAC rule 3745-17-07(B)(2)(a)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the visible particulate emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iv)].
offtake systems	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See Section A.I.2.i.
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The emission limitation specified in the PSD permit is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iv)].
	40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iii)]	See Section A.I.2.c.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
topside lids	OAC rule 3745-31-05 (PTI No. 02-171)	The emission limitation specified in the PTI is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iii)].
	OAC rule 3745-17-07(B)(2)(b)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the visible emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iii)].
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See Section A.I.2.j.
	40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(ii)]	The emission limitation specified in the PSD permit is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(iv)].
	OAC rule 3745-31-05 (PTI No. 02-171)	See Section A.I.2.d.
	OAC rule 3745-17-07(B)(2)(c)	The emission limitation specified in the PTI is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(ii)].
	OAC rule 3745-17-07(B)(2)(c)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B).
OAC rule 3745-17-07(B)(2)(c)	The emission limitation specified by this rule is less stringent than the visible emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(ii)].	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See Section A.I.2.k.
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The emission limitation specified in the PSD permit is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(ii)].
coke oven doors	40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(i)(B)] OAC rule 3745-31-05 (PTI No. 02-171)	See Section A.I.2.e.  The emission limitation specified in the PTI is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(i)].
	OAC rule 3745-17-07(B)(2)(d)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B).  The emission limitation specified by this rule is less stringent than the visible emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(i)].
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See Section A.I.2.l.
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The emission limitation specified in the PSD permit is less stringent than the emission limitation specified in 40 CFR, Part 63, Subpart L [40 CFR, Part 63.304(b)(2)(i)].
pushing operations	OAC rule 3745-31-05 (PTI No. 02-171)	Emissions from pushing operations shall not exceed 0.030 pound of particulate emissions per ton of coke pushed for not less than ninety percent of the total emissions during the pushing operation.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(B)(2)(e)	Visible particulate emissions of fugitive dust during the pushing operations shall not exceed an average of twenty percent opacity read above the battery top. The duration of a pushing operation shall commence with the moving (or pushing) of the coke mass from an oven and shall conclude when the quench car enters the quench tower.
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The requirements established in the PSD permit are equivalent to the requirements established pursuant to OAC rule 3745-31-05.
bypass bleeder flare	40 CFR, Part 63, Subpart L [40 CFR, Part 63.307]	See Section A.I.2.a.
collecting main	40 CFR, Part 63, Subpart L [40 CFR, Part 63.308]	See Section A.III.3.
coke oven firing (combustion stack)	OAC rule 3745-31-05 (PTI No. 02-171)	Particulate emissions from the combustion stack shall not exceed 0.030 grain per standard cubic foot of exhaust gases.  The concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)	Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the combustion stack associated with this emissions unit shall not exceed twenty percent opacity as a six-minute average.
	OAC rule 3745-17-10(C)(1)	The emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	The requirements established in the PSD permit are equivalent to the requirements established pursuant to OAC rule 3745-31-05.
pushing operations and combustion stack	40 CFR, Part 63, Subpart CCCCC	See Sections A.IV.12 and A.IV.13 of these terms and conditions.

**2. Additional Terms and Conditions**

- 2.a.** The emergency bypass bleeder flare shall be operated with no visible emissions, as determined by U. S. EPA Method 22, in Appendix A to Part 60, with an observation period of two hours, except for periods not to exceed 5 minutes during any 2 consecutive hours.
- 2.b.** During charging operations, visible particulate emissions shall not exceed 12 seconds per charge over 5 consecutive charges, as determined by the procedures in Section A.V.1.d of these terms and conditions.
- 2.c.** There shall be no visible particulate emissions from more than 2.5 percent of the offtake systems, as determined by the procedures in Section A.V.1.f of these terms and conditions.
- 2.d.** There shall be no visible particulate emissions from more than 0.4 percent of the topside lids, as determined by the procedures in Section A.V.1.f of these terms and conditions.
- 2.e.** There shall be no visible particulate emissions from more than 3.8 percent of the coke oven doors, as determined by the procedures in Section A.V.1.f of these terms and conditions. On and after January 1, 2010, there shall be no visible particulate emissions from more than 3.3 percent of the oven doors, as determined by the procedures in Section A.V.1.f of these terms and conditions.
- 2.f.** The permittee, having qualified for a compliance date extension pursuant to 40 CFR, Part 63.304, shall make available, no later than January 1, 2000, to the surrounding communities the results of any risk assessment performed by the Administrator to determine the appropriate level of any emission standard established by the Administrator according to section 112(f) of the Clean Air Act.

## **2. Additional Terms and Conditions (continued)**

- 2.g.** At all times including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the coke oven battery, and its pollution control equipment required by 40 CFR Part 63, Subpart L, National Emission Standards for Coke Oven Batteries, in a manner consistent with good air pollution practices for minimizing emissions to the levels required by any applicable performance standards under 40 CFR Part 63, Subpart L.
- 2.h.** In accordance with 40 CFR Part 63.310, the permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable. During a period of startup, shutdown, or malfunction:
- i. the permittee shall operate the battery (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan; and
  - ii. malfunctions shall be corrected as soon as practicable after each occurrence, in accordance with the plan.
- 2.i.** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).
- At a minimum, the permittee's employment of RACM during charging operations shall include: staged charging with a double collection main.
- 2.j.** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).
- At a minimum, the permittee's employment of RACM for offtake systems shall include: mechanical gooseneck cleaners.
- 2.k.** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).
- At a minimum, the permittee's employment of RACM for topside lids shall include: magnetic lid lifters.
- 2.l.** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).
- At a minimum, the permittee's employment of RACM for coke oven doors shall include: self-sealing doors and mechanical door and jamb cleaners.

## **II. Operational Restrictions**

- 1.** In accordance with the requirements of 40 CFR, Part 63.307, the emergency bypass bleeder flare shall comply with the following requirements:
- a. the flare shall be able to control 120 % of the normal gas flow generated by the battery;
  - b. the flare shall be steam-assisted and shall be designed for a net heating value of 240 Btu/scf;
  - c. the flare shall be operated with a continuously operable pilot flame monitored by a thermocouple (or equivalent device); and
  - d. coke oven emissions shall not be vented to the atmosphere through the bypass bleeder stack, except through the flare system.

## II. Operational Restrictions (continued)

2. In accordance with 40 CFR Part 63.306, the permittee shall operate according to the work practice plan, required by Section A.III.5 for each emissions point, following the second independent exceedance of the visible emission limitation for that emission point in any consecutive 6-month period, by no later than 3 days after the receipt of written notification of the second such exceedance from the certified observer. The permittee shall continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days.
3. The particulate emission control system for pushing operations consists of a Chemico coke quench car with a hot water venturi scrubber. The Chemico car hot water scrubber system shall be maintained at a minimum water pressure of 200 psi and a minimum water temperature of 250 degrees Fahrenheit or 121 degrees Centigrade prior to the start of the pushing operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and total reduced sulfur monitoring systems required for the desulfurization plant (emissions unit P002) in accordance with Section A.III.1 of these terms and conditions for emissions unit P002.
2. The collecting main shall be inspected in accordance with U. S. EPA Method 303 in Appendix A of 40 CFR, Part 63.

The charging operations shall be inspected, for 5 consecutive charges, in accordance with U. S. EPA Method 303 in Appendix A of 40 CFR, Part 63.

The offtake systems, topside lids and coke oven doors shall be inspected in accordance with U. S. EPA Method 303 in Appendix A of 40 CFR, Part 63.

- 2.a. U. S. EPA Method 303 visible emission readings of offtake systems, topside lids and oven doors shall be performed by a certified observer, and shall be conducted at least once each day, 7 days per week, at various times during the day. In addition, the collecting main shall be inspected daily as required by U.S.EPA Method 303.

The certified observer shall complete any reasonable safety training program offered by the permittee prior to conducting any performance test at a coke oven battery.

- 2.b. The permittee shall record the time and date each collecting main leak is first observed, the time and date the collecting main leak is temporarily sealed, and the time and date of repair. Any leak in the collecting main shall be temporarily sealed as soon as possible after detection, but no later than 4 hours after detection of the leak. The permittee shall initiate a collecting main repair as expeditiously as possible, but no later than 5 calendar days after initial detection of the leak. The repair shall be completed within 15 calendar days after initial detection of the leak unless an alternative schedule is approved by the Administrator.
- 2.c. The observer may perform additional readings as needed to obtain and record a visible emissions value (or set of values) for an emission point that is valid under U. S. EPA Method 303 in Appendix A of 40 CFR, Part 63. Observations from fewer than five consecutive charges shall constitute a valid set of charging operations only in accordance with the procedures and conditions specified in sections 3.8 and 3.9 of U. S. EPA Method 303 in Appendix A of 40 CFR, Part 63.
- 2.d. If a valid visible emissions value (or set of values) is not obtained for a performance test, there is no compliance determination for that day. Compliance determinations will resume on the next day that a valid visible emissions value (or set of values) is obtained.
- 2.e. After each set of visible emissions readings for the coke oven doors, topside lids and offtake systems are completed for the by-product coke oven battery, the certified observer shall check and record the collecting main pressure according to the procedures in section 6.3 of Method 303 in Appendix A of 40 CFR, Part 63. The permittee shall demonstrate pursuant to Method 303 the accuracy of the pressure measurement device upon request of the certified observer. The permittee shall not adjust the pressure to a level below the range of normal operation during or prior to the inspection.

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

- 2.f.** For each day on which a valid daily set of visible emission observations is obtained for the charging operations, the certified observer shall calculate and record the daily 30-day rolling log average of seconds of visible emissions from the charging operations using these data and the 29 previous valid daily sets of observations.
- 2.g.** For each day on which a valid visible emission observation is obtained for the coke oven doors, the certified observer shall calculate and record the daily 30-day rolling average for the coke oven doors using these data and the 29 previous valid daily observations.
- 2.h.** For each day on which a valid visible emission observation is obtained for the topside lids, the certified observer shall calculate and record the daily 30-day rolling average for the topside lids using these data and the 29 previous valid daily observations.
- 2.i.** For each day on which a valid visible emission observation is obtained for the offtake systems, the certified observer shall calculate and record the daily 30-day rolling average for the offtake systems using these data and the 29 previous valid daily observations.
- 2.j.** The permittee shall not knowingly block a coke oven door, or any portion of a door for the purpose of concealing emissions or preventing observations by the certified observer.
- 2.k.** The certified observer shall make available to the Ohio EPA, Northeast District Office, as well as to the permittee, a copy of the daily inspection results by the end of the day and shall make available the calculated daily 30-day rolling log average of seconds of visible emissions from charging operations and the calculated daily 30-day rolling averages of visible emissions from the coke oven doors, topside lids, and offtake systems to the owner or operator as soon as practicable following each performance test. The information provided by the certified observer is not a compliance determination. For the purpose of notifying a permittee of the results obtained by a certified observer, the person does not have to be certified.
- 2.l.** Compliance shall not be determined more often than the schedule provided for performance tests in these terms and conditions. If additional valid emissions observations are obtained (or in the case of charging , valid sets of emission observations), the arithmetic average of all values (or valid sets of values) obtained during the day shall be used in any computation performed to determine compliance under Sections A.V.1.d through A.V.1.f or A.III.2 of these terms and conditions.
- 3.** No observations obtained during any program for training or for certifying observers for U. S. EPA Method 303 shall be used to determine compliance with the requirements of these terms and conditions.
- 4.** The permittee shall maintain a written emission control work practice plan for the coke battery. In accordance with the requirements of section 63.306 of 40 CFR, Part 63, Subpart L, the plan shall be designed, implemented, and maintained to achieve compliance with the visible emission limitations for coke oven doors, topside lids, offtake systems and charging operations. The permittee shall organize the work practice plan so that the subjects required in accordance with Sections A.III.4.a through A.III.4.e are clearly addressed.

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

- 4.a.** The work practice plan shall include procedures for initial and refresher training for all plant personnel and contractors with responsibilities that impact emissions. The training program shall include:
- i. a list, by job title, of personnel that are required to be trained and the emission points associated with each job title;
  - ii. an outline of the subjects to be covered in the initial and refresher training for each group of personnel;
  - iii. a description of the training methods that will be used;
  - iv. a statement of the duration of initial training and the duration and frequency of refresher training;
  - v. a description of the methods used to demonstrate and document successful completion of the training program; and
  - vi. a description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery including a copy of the form(s), if applicable, as required under the plan provisions implementing Section A.III.4.f.
- 4.b.** The work practice plan shall include procedures for controlling emissions from oven doors including the following:
- i. a program for the inspection, adjustment, repair, and replacement of coke oven door jambs, and any other equipment for controlling emissions from coke oven doors, including a defined frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
  - ii. procedures for identifying leaks that indicate a failure of the emissions control equipment to function properly, including a clearly defined chain of command for communicating information on leaks and procedures for corrective action;
  - iii. procedures for cleaning all sealing surfaces of each door and jamb, including identification of the equipment that will be used and a specified schedule or frequency for the cleaning of sealing surfaces;
  - iv. for batteries equipped with self sealing doors, procedures for the use of supplemental gasketing and luting materials, if the permittee elects to use such procedures as part of the program to prevent exceedances;
  - v. for batteries equipped with hand-luted doors, procedures for luting and reluting, as necessary, to prevent exceedances;
  - vi. procedures for maintaining an adequate inventory of the number of spare coke oven doors and jambs located on site; and
  - vii. procedures for monitoring and controlling collecting main back pressure, including corrective actions if pressure control problems occur.

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

- 4.c.** The work practice plan shall include procedures for controlling emissions from charging operations including the following:
- i. procedures for equipment inspection, including the frequency of inspections, and the replacement or repair of equipment controlling emissions from charging, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
  - ii. procedures for ensuring that the larry car hoppers are filled properly with coal;
  - iii. procedures for the alignment of the larry car over the oven to be charged;
  - iv. procedures for filling the oven;
  - v. procedures for ensuring the coal is leveled properly in the oven; and
  - vi. procedures and schedules for inspection and cleaning of offtake systems, oven roofs, charging holes, topside lids, the steam supply system, and liquor sprays.
- 4.d.** The work practice plan shall include procedures for controlling emissions from topside lids including the following:
- i. procedures for equipment inspection and replacement or repair of topside lids and port lid matting and sealing surfaces, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances; and
  - ii. procedures for sealing topside lids after charging, for identifying topside port lids that leak, and procedures for resealing.
- 4.e.** The work practice plan shall include procedures for controlling emissions from oven offtake systems including the following:
- i. procedures for equipment inspection and replacement or repair of offtake system components, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
  - ii. procedures for identifying offtake system components that leak and procedures for sealing leaks that are detected; and
  - iii. procedures for dampering off ovens prior to a push.
- 4.f.** The work practice plan shall include procedures for maintaining, for each emission point subject to visible emission limitations by this permit, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including:
- i. procedures for recording the performance of such plan requirements; and
  - ii. procedures for certifying the accuracy of such records by the permittee.
- 4.g.** The permittee shall implement the work practice plan procedures after 2 independent exceedances of the visible emission limitations for an emission point within a 6-month period and within three days after the receipt of written notification from the Ohio EPA, Northeast District Office.

The permittee shall continue the procedures of the work practice plan for 90 days after the most recent written notification.

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

**4.h.** The permittee shall review and revise the work practice plan in accordance with the following:

i. The permittee may be required to review and revise the work practice plan for an emission point if there are 2 independent exceedances of a visible emission limitation within the 6-month period which begins 30 days after the permittee is required to implement the work practice plan.

ii. The permittee shall not be required to review and revise the work practice plan more than twice in any 12-month period for a particular emission point.

iii. If the certified observer calculates a second independent exceedance of the visible emission limitation has occurred for an emission point, the observer shall notify the permittee. Within 10 days of notification, the permittee shall notify the Administrator and the Director whether the work practices are related to the cause or solution of the problem.

iv. The permittee shall submit revised work practice plans within 60 days of notification from the Administrator, unless the Administrator grants an extension of time to submit the revised plan.

v. If a work practice plan revision is required, the permittee may be required to address subjects not listed in these terms and conditions or 40 CFR, Part 63.306(b) if there is reason to expect further exceedances of the visible emission limitations.

vi. A work practice plan revision may be disapproved if the revised plan is not adequate to prevent future exceedances of the visible emission limitations.

**4.i.** If the permittee is required to implement the provisions of the work practice plan for a particular emission point, the permittee shall maintain the following records regarding the implementation of plan requirements for that emission point during the implementation period:

i. copies of all written and audiovisual materials used in the training, the dates of each class, the names of the participants in each class, and documentation that all appropriate personnel have successfully completed the training required under Section A.III.4.a of these terms and conditions;

ii. the records required to be maintained by the plan provisions implementing Section A.III.4.f of these terms and conditions; and

iii. records resulting from audits of the effectiveness of the work practice program for the particular emission point, as required under Sections A.III.4.b.i, A.III.4.c.i, A.III.4.d.i, or A.III.4.e.i of these terms and conditions; and

iv. if the plan provisions for coke oven doors must be implemented, records of the inventory of doors and jambs as required under Section A.III.4.b.vi of these terms and conditions.

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

5. The permittee shall develop and implement, in accordance with the procedures in of 40 CFR Part 63.310, a written startup, shutdown, and malfunction plan for the coke oven battery. At all times including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the coke oven battery, and its pollution control equipment required by 40 CFR Part 63, Subpart L, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by 40 CFR Part 63, Subpart L.
  - a. The permittee shall operate the coke oven battery in accordance with the startup, shutdown, and malfunction plan during a startup shutdown, or malfunction event.
  - b. Malfunctions shall be corrected as soon as practical in accordance with this plan.
  - c. The permittee shall notify the certified Method 303 observer if practical and if the observer is at the facility during a malfunction event in accordance with 40 CFR Part 63.310(d).
  - d. The permittee shall maintain plant records which form the basis of each malfunction notification.
6. The permittee shall maintain records of the design drawings and engineering specifications for the emergency bypass bleeder flare.

A thermocouple or equivalent device shall be used to determine pilot flame presence. The permittee shall maintain the existing automatic self igniting pilot system.

The permittee shall initiate the observations and recordings of visible emissions from the flaring of coke oven gas from the emergency bypass bleeder flare during daylight hours within 4 hours of the start of the event or within 4 hours of dawn. Visible emission observations shall be performed in accordance with the methods and procedures of U.S.EPA Method 22, Appendix A, 40 CFR, Part 60 with an observation period of 2 hours. The visible emission observations shall be performed once per event when coke oven gas is flared to the emergency bypass bleeder flare.

7. The permittee shall, on a weekly basis, observe and record a minimum of one, eighteen-minute, set of visible emission readings of the combustion stack emissions in accordance with the methods and procedures of U. S. EPA Method 9, Appendix A, 40 CFR, Part 60.
8. The permittee shall properly operate and maintain equipment to monitor the hot water pressure and temperature in the Chemico car hot water scrubber system while the emissions unit is in pushing operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

- a. The Chemico car hot water scrubber system water pressure, in pounds per square inch, prior to the start of each push.
- b. The Chemico car hot water scrubber system water temperature, in degrees Fahrenheit or Centigrade, prior to the start of each push.
- c. The operating times for the Chemico coke quench car and the Chemico car hot water scrubber system.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports identifying all periods of time during which the coke oven battery exceeded the visible emissions limitations for pushing operations, charging operations, offtake systems, topside lids and/or oven doors.
2. The permittee shall submit quarterly deviation (excursion) reports identifying each instance when the results of the Method 9 readings documented an exceedance of the combustion stack visible emission limitation.

#### IV. Reporting Requirements (continued)

3. Startups, shutdowns, and reportable malfunctions shall be reported and the Ohio EPA notified in accordance with 40 CFR, Parts 63.310 as follows:
  - a. In order for an observation occurring during such startup, shutdown, or malfunction to not constitute a violation of relevant requirements of this subpart or to be used in any compliance determination under 40 CFR, Part 63.309, notification of a startup, shutdown, or a malfunction shall be made by the permittee as follows:
    - i. if practicable, to the certified observer if the observer is at the facility during the occurrence; or
    - ii. to the Ohio EPA Northeast District Office, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the notification under paragraph a.i. of this section was not made, an explanation of why no such notification was made.
  - b. Within 14 days of the notification made under paragraph a. of this section, or after a startup or shutdown, the permittee shall submit a written report to the applicable permitting authority that:
    - i. describes the time and circumstances of the startup, shutdown, or malfunction; and
    - ii. describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.
  - c. The permittee shall maintain a record of internal reports which form the basis of each malfunction notification under paragraph a. of this section.
4. The permittee shall submit quarterly deviation (excursion) reports identifying any instance when the results of the Method 22 readings documented an exceedance of the emergency bypass bleeder flare visible emission limitation.
5. The permittee shall report the venting of coke oven gas through a bypass bleeder stack, that is not vented through the bypass bleeder flare system, as soon as practical but no later than 24 hours after the beginning of the event. These reports shall be submitted to the U. S. EPA Region 5 Administrator, with a copy to the Ohio EPA Northeast District Office.

A written report which includes a description of the event and notification of a hazardous substance release shall be submitted within 30 days after each occurrence.

6. The permittee shall notify the enforcement agency within 24 hours of a malfunction in accordance with the startup, shutdown, and malfunction plan and this notification shall include an explanation if the certified Method 303 observer was not notified as required in Section A.III.5.c of this permit.

Within 14 days of the notification required above, the permittee shall submit a written report to the permitting authority describing the date, time, and circumstances of the startup, shutdown, or malfunction event and describing actions taken that may be inconsistent with the startup, shutdown, and malfunction plan.

#### IV. Reporting Requirements (continued)

7. The permittee shall submit semi-annual compliance certifications in accordance with the requirements of 40 CFR, Part 63.311, which are signed by the permittee, certifying the following:
- a. no coke oven gas was vented, except through the bypass/bleeder stack flare system, during the reporting period or that a venting report has been submitted in accordance with Section A.IV.5 of this permit;
  - b. a startup, shutdown, or malfunction event did not occur during the reporting period or that a startup, shutdown, or malfunction event did occur and a report was submitted in accordance with Section A.IV.8 of this permit; and
  - c. that work practices were implemented, as applicable, under the work practice plan required in Section A.III.4 of this permit.

These semi-annual certifications shall be submitted to the U. S. EPA Region 5 Administrator, with a copy to the Ohio EPA Northeast District Office.

8. Within 45 days of the effective date of this permit, the permittee shall submit a written statement to the U. S. EPA Region 5 Administrator, with a copy to the Ohio EPA Northeast District Office, signed by the owner or operator, certifying compliance with the requirements for a written startup, shutdown, and malfunction plan in accordance with 40 CFR 63.311(b)(2).
9. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the concentration of hydrogen sulfide in the desulfurized coke oven gas burned in this emissions unit and the desulfurization tail gas, combined, exceeded 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day and the actual hydrogen sulfide content for each such day.
10. The permittee shall submit deviation (excursion) reports that identify all periods of time prior to the start of pushing operations which the following Chemico car scrubber parameters were not maintained at or above the required levels:
- a. The hot water scrubber system water pressure.
  - b. The hot water scrubber system water temperature.
11. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.
12. Within 120 days after promulgation of 40 CFR, Part 63, Subpart CCCCC, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
- a. the name and mailing address of the permittee;
  - b. the physical location of the source if it is different from the mailing address;
  - c. identification of the relevant MACT standard and the permittee's compliance date;
  - d. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant; and
  - e. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.

#### **IV. Reporting Requirements (continued)**

- 13.** Within 60 days following completion of any required compliance demonstration activity specified in the 40 CFR, Part 63, Subpart CCCCC, the permittee shall submit a notification of compliance status that contains the following information:
  - a. the methods used to determine compliance;
  - b. the results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - c. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - d. the type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR, Part 63, Subpart CCCCC;
  - e. an analysis demonstrating whether the affected source is a major source or an area source;
  - f. a description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method; and
  - g. a statement of whether or not the permittee has complied with the requirements of 40 CFR, Part 63, Subpart CCCCC.

#### **V. Testing Requirements**

- 1.** Compliance with the emissions limitations in Sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a.** Emission Limitation:

Particulate emissions from the combustion stack shall not exceed 0.030 grain per standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated by emission testing of the combustion stack in accordance with Method 5 of 40 CFR, Part 60, Appendix A.
  - 1.b.** Emission Limitation:

Except as otherwise specified in paragraph (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the combustion stack associated with this emissions unit shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

## **V. Testing Requirements (continued)**

### **1.c. Emission Limitation:**

The concentration of sulfur compounds, measured as hydrogen sulfide, in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in Section A.III.1 and the reporting requirements in Section A.IV.1 for the desulfurization plant (emissions unit P002).

### **1.d. Emission Limitations:**

During charging operations, visible particulate emissions shall not exceed 12 seconds per charge over 5 consecutive charges.

Applicable Compliance Method:

Using the observations obtained in accordance with section A.III.3 of these terms and conditions, compliance shall be demonstrated by calculating the logarithmic 30-day rolling average of the seconds of visible emissions per charge using the equation in section 3.9 of Method 303 in Appendix A of 40 CFR, Part 63.

### **1.e. Emission Limitations:**

There shall be no visible particulate emissions from more than 2.5 percent of offtake systems.

There shall be no visible particulate emissions from more than 0.4 percent of the topside lids.

There shall be no visible particulate emissions from more than 3.8 percent of the coke oven doors. On and after January 1, 2010, there shall be no visible particulate emissions from more than 3.3 percent of the oven doors.

Applicable Compliance Method:

Using the observations obtained in accordance with Section A.III.3 of these terms and conditions, compliance shall be demonstrated by calculating the 30-run rolling average of the percent leaking coke oven doors, topside lids, and offtake systems using the equation in sections 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 in Appendix A of 40 CFR, Part 63.

### **1.f. Emission Limitations:**

Visible particulate emissions of fugitive dust during the pushing operations shall not exceed an average of twenty percent opacity read above the battery top. The duration of a pushing operation shall commence with the moving (or pushing) of the coke mass from an oven and shall conclude when the quench car enters the quench tower.

Applicable Compliance Method:

OAC rule 3745-17-03(B)(2)(d)

## V. Testing Requirements (continued)

### 1.g. Emission Limitations:

Emissions from pushing operations shall not exceed 0.030 pound of particulate emissions per ton of coke pushed for not less than ninety percent of the total emissions during the pushing operation.

Applicable Compliance Method:

OAC rule 3745-17-03(B)(10)

### 1.h. Emission Limitations:

The emergency bypass bleeder flare shall be operated with no visible emissions, except for periods not to exceed 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

40 CFR, Part 60, Appendix A, Method 22

## 2. The permittee shall conduct, or have conducted, emission testing of the combustion stack and the pushing emission control system in accordance with the following requirements:

a. Emission testing of the combustion stack shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit expiration.

b. Emission testing of the pushing emission control system shall be conducted within 6 months prior to permit expiration.

c. The emission testing shall be conducted to demonstrate compliance with the allowable emission rate(s) for particulate emissions.

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

Method 5 of 40 CFR, Part 60, Appendix A.

e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s) unless the permittee requests and is granted additional time by the Ohio EPA for submission of the test report.

Facility Name: **LTV STEEL COMPANY, INC. WARREN COKE PLANT**  
Facility ID: **02-78-00-0648**  
Emissions Unit: **No. 4 Coke oven battery (B901)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Coal handling and processing (F001)  
**Activity Description:** Coal loading, unloading and processing

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coke plant coal handling and processing	OAC rule 3745-17- 07 (B)(8)(b)	Visible particulate emissions of fugitive dust from coke plant coal handling and processing shall not exceed twenty percent opacity as a three-minute average.
	OAC rule 3745-17- 08 (B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.d).

##### 2. Additional Terms and Conditions

- 2.a. The material handling operation(s) that are covered by this permit and subject to the requirements of OAC rules 3745-17- 07 and 3745-17-08 are listed below:
  - i. coal loading/unloading (mobile crane clamshell, truck, and front end loader),
  - ii. coal unloading (bottom dumping of railroad cars and truck dumping),
  - iii. coal belt conveyors,
  - iv. coal conveyor transfer points (belt to belt to loading bins), and
  - v. coal handling (breaker, mixing floor and hammer mills).

## **2. Additional Terms and Conditions (continued)**

**2.b.** The permittee shall employ reasonably available control measures for the above-identified material handling operations 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 perform the following control measure(s) to ensure compliance:

i. Material handling operation: coal loading/unloading (mobile crane clamshell, truck, and front end loader)

Apply water and/or any other suitable dust suppression chemicals, as needed, or minimize drop height distance.

ii. Material handling operation: coal unloading (bottom dumping of railroad cars and truck dumping)

Employ and maintain the existing two-sided enclosure.

iii. Material handling operation: coal belt conveyors

Employ and maintain the existing conveyor belt covers.

iv. Material handling operation: coal conveyor transfer points (belt to belt to loading bins)

Employ and maintain the existing transfer point belt and bin partial enclosures.

v. Material handling operation: coal handling (breaker, mixing floor and hammer mills)

Maintain the existing building enclosure. The dust control system on the mixing floor shall be used, as needed, to condition the coal and/or minimize visible emissions of fugitive dust from the hammer mills.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c.** For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measures is unnecessary.

**2.d.** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## **II. Operational Restrictions**

**None**

### III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)      minimum inspection frequency

- |   |        |
|---|--------|
| a. coal loading/unloading (mobile crane clamshell, truck, and front end loader) | daily  |
| b. coal unloading (bottom dumping of railroad cars and truck dumping)           | weekly |
| c. coal belt conveyors  | weekly |
| d. coal conveyor transfer points (belt to belt to loading bins)                 | weekly |
| e. coal handling (breaker, mixing floor and hammer mills)                       | weekly |

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - 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.

The information in 4.d shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

Facility Name: **LTV STEEL COMPANY, INC. WARREN COKE PLANT**

Facility ID: **02-78-00-0648**

Emissions Unit: **Coal handling and processing (F001)**

## **V. Testing Requirements**

1. Compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 9 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)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paved and unpaved roadways (F002)

**Activity Description:** Paved and unpaved roadways and parking lots. Former F002 source ID (coke storage piles) combined with source ID Z002 to form ID F003 for coal and coke Aggregate storage piles.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
paved roadways and parking areas (see Section A.1.2.a)	OAC rule 3745-17-07(B)(8)	Visible particulate emissions are limited to ten percent opacity for any paved roadway or parking area, as determined in accordance with paragraph (B)(3) of rule 3745-17-03 of the Administrative Code (see Section A.1.2.k).
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.c, A.1.2.e and A.1.2.h through A.1.2.j).
unpaved roadways and parking areas (see Section A.1.2.b)	OAC rule 3745-17-07(B)(8)	Visible particulate emissions are limited to ten percent opacity for any unpaved roadway or parking area, as determined in accordance with paragraph (B)(3) of rule 3745-17-03 of the Administrative Code (see Section A.1.2.k).
	OAC rule 3745-17-08(B), (B)(2)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.d through A.1.2.g, A.1.2.i and A.1.2.j).

## 2. Additional Terms and Conditions

- 2.a.** The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

paved roadways:

All facility roadways east of the coal unloading area and the roadway to the coal handling area

paved parking areas:

All facility paved parking areas

- 2.b.** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

unpaved roadways:

All facility roadways west of the coal unloading area excluding the paved roadway to the coal handling area

unpaved parking areas:

All unpaved parking areas west of the coal unloading area

- 2.c.** The permittee shall employ reasonably available control measures on all paved 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 sweeping and flushing at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d.** The permittee shall employ reasonably available control measures on all 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 unpaved roadways and parking areas with water or suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e.** 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 or 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.
- 2.f.** A maximum speed limit of 15 miles per hour on unpaved roads shall be posted and enforced on the property.
- 2.g.** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.h.** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, 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.

**2. Additional Terms and Conditions (continued)**

- 2.i. 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.
- 2.j. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.
- 2.k. The emission limitation and rule citation reflect the settlement agreement reached between Ohio EPA and the iron and steel production facilities concerning the iron and steel facilities' appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule containing the limitation and rule citation was adopted by the Director of Ohio EPA in December, 1997. The USEPA and the iron and steel production facilities have agreed to consider the emission limitation and rule citation as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the limitation and rule citation as a revision to the Ohio SIP for particulate matter.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and each parking area in accordance with the following frequencies:  
  
paved roadways and parking areas      minimum inspection frequency  
  
All      Weekly  
  
unpaved roadways and parking areas      minimum inspection frequency  
  
All      Daily
- 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 on days when the plant is operating. 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. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- 3. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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

4. 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 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - 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.
2. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.

### **V. Testing Requirements**

1. Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 9 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 paragraph (B)(3)(d) of OAC rule 3745-17-03.

### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Coke oven battery quenching station (P001)

**Activity Description:** No. 4 Coke oven battery quenching station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No. 4 coke oven battery quenching station	OAC rule 3745-31-05 (PTI No. 02-324)	See Section A.II.2.
	OAC rule 3745-17-11	Particulate emissions from the No. 4 coke oven battery quenching station shall not exceed 51.3 pounds per hour based on Table I of OAC rule 3745-17-11. Figure II of OAC rule 3745-17-11 does not apply because the uncontrolled mass rate of emission cannot be ascertained (see Section A.I.2.a).
	OAC rule 3745-17-07(A)	Except as otherwise specified in paragraphs (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the No. 4 coke oven battery quenching station shall not exceed twenty percent opacity as a six-minute average.
	40 CFR, Part 63, Subpart CCCCC	See Sections A.IV.3 and A.IV.4 of these terms and conditions.

##### 2. Additional Terms and Conditions

- 2.a. Emissions of particulates from this emissions unit shall be controlled by limiting the total dissolved solids content of the quench water and by employing an adequate baffle system within the quench tower.

##### II. Operational Restrictions

1. The total dissolved solids in the quench water applied to the coke shall not exceed 1500 mg/l as a monthly average. The permittee shall achieve compliance with the quench water limitation for total dissolved solids by using only Mahoning River water, coke pushing emission control system blowdowns, surface drainage from the coke car railroad tracks and wharf area, preheater condensate, discharges from the waste heat flue sump and the coke battery stack sump or non-process water as makeup water in its quenching operation. Non-process water shall be defined as non-contact process cooling water, steam condensate, rain water, ground water, city water or recycled quench water.

## II. Operational Restrictions (continued)

2. The permittee shall employ and maintain a baffle system within the quench tower which shall provide coverage of not less than ninety percent of the interior cross sectional area of the tower.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect a weekly sample of the quench water as applied to the coke, have the sample analyzed for the concentration of total dissolved solids, in mg/L, in accordance with OAC rule 3745-17-03(B)(10)(c), and maintain records of the results of each analysis.
2. The permittee shall maintain records of the monthly average total dissolved solids concentration in the quench water applied to the coke. The monthly average total dissolved solids concentration in the quench water shall be based on the sum of the results of the weekly analyses required in Section A.III.1 divided by the number of weekly samples.
3. The permittee shall inspect the quench tower and baffle system on a monthly basis. The results of the monthly inspections shall be maintained in a log including the following information:
  - a. the date of the inspection;
  - b. the name of the inspector;
  - c. a description of the condition of the quench tower and baffles; and
  - d. a description of any corrective actions taken as a result of the inspection.

The permittee shall repair the quench tower and baffle system, as needed, based on the monthly inspections. A record of each quench tower or baffle repair shall also be maintained in a log.

The permittee shall retain a copy of the design drawings for the quench tower (including the baffle system) on site.

4. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequency if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any monthly record showing that the total dissolved solids concentration in the quench water applied to the coke exceeded 1500 mg/L as a monthly average; and
  - b. any month when an inspection of the quench tower and baffle system was not performed.
2. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.

#### **IV. Reporting Requirements (continued)**

3. Within 120 days after promulgation of 40 CFR, Part 63, Subpart CCCCC, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. the name and mailing address of the permittee;
  - b. the physical location of the source if it is different from the mailing address;
  - c. identification of the relevant MACT standard and the permittee's compliance date;
  - d. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each hazardous air pollutant; and
  - e. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT.
4. Within 60 days following completion of any required compliance demonstration activity specified in the 40 CFR, Part 63, Subpart CCCCC, the permittee shall submit a notification of compliance status that contains the following information:
  - a. the methods used to determine compliance;
  - b. the results of any performance test, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - c. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
  - d. the type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR, Part 63, Subpart CCCCC;
  - e. an analysis demonstrating whether the affected source is a major source or an area source;
  - f. a description of the air pollution control equipment or method for each emission point, including each control device or method for each hazardous air pollutant and the control efficiency (percent) for each control device or method; and
  - g. a statement of whether or not the permittee has complied with the requirements of 40 CFR, Part 63, Subpart CCCCC.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in Sections A.I.1 and A.II of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:

Except as otherwise specified in paragraphs (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the No. 4 coke oven battery quenching station shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1), if required by the Ohio EPA.

**V. Testing Requirements (continued)**

**1.b. Emission Limitation:**

Particulate emissions from the No. 4 coke oven battery quenching station shall not exceed 51.3 pounds per hour based on Table I of OAC rule 3745-17-11. Figure II of OAC rule 3745-17-11 does not apply because the uncontrolled mass rate of emission cannot be ascertained (see Section A.I.2.a).

Applicable Compliance Method:

Compliance shall be demonstrated through weekly testing for total dissolved solids in the quench water, as required in Section A.II.1, and by maintaining compliance with the total dissolved solids limit of 1500 mg/l in the quench water, as a monthly average.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Desulfurization Plant (P002)  
**Activity Description:** Desulfurization Plant, Tail Gas Emissions (P002)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coke oven gas desulfurization plant equipped with a tail gas incinerator and excess coke oven gas flare	OAC rule 3745-17-11	See A.I.2.a below.
	OAC rule 3745-17-07(A)	Except as otherwise specified in paragraphs (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the excess coke gas flare shall not exceed twenty percent opacity as a six-minute average.
	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-05 (PTI No. 02-171) 40 CFR, Part 52.21 PSD Permit No. EPA-5-77-A-9	See A.I.2.b below.  The requirements established pursuant to this rule and the PSD permit are equivalent to the requirements established pursuant to OAC rule 3745-31-05.

##### 2. Additional Terms and Conditions

- 2.a. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b. The daily average concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

## II. Operational Restrictions

1. The average temperature at the tail gas thermal incinerator outlet, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1000 degrees Fahrenheit.
2. The permittee shall vent all excess desulfurized coke oven gas to the excess coke oven gas flare.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall operate and maintain the existing equipment to continuously monitor and record the concentration of sulfur dioxide in the incinerator tail gas and total reduced sulfur in the desulfurized coke oven gas, expressed as hydrogen sulfide in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and total reduced sulfur monitoring systems including, but not limited to, the grains of hydrogen sulfide per 100 dry standard cubic feet (dscf) for the desulfurized coke oven gas on a daily average basis, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day.

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

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

- a. All 3-hour blocks of time during which the average temperature at the tail gas thermal incinerator outlet, when the emissions unit was in operation, was less than 1000 degrees Fahrenheit.
  - b. A log of the downtime for the tail gas thermal incinerator and/or monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall observe the excess coke oven gas flare and record the following information each shift:
    - a. Observations during which the coke oven gas flare was functioning properly and excess coke oven gas was vented and flared.
    - b. Observations during which the coke oven gas flare was functioning properly and excess coke oven gas was not vented.
    - c. Observations during which the coke oven gas flare was not functioning properly and excess coke oven gas was vented, but was not flared.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the concentration of hydrogen sulfide in the desulfurized coke oven gas and the desulfurization tail gas, combined, exceeded 35 grains per 100 dscf of coke oven gas produced, and the actual hydrogen sulfide content for each such day.
2. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average temperature at the tail gas thermal incinerator outlet did not comply with the temperature limitation specified above.
3. The permittee shall submit deviation (excursion) reports that identify all periods during which the excess coke oven gas flare was not functioning properly. The reports shall include the date, time, and duration of each such period.

#### **IV. Reporting Requirements (continued)**

4. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.

#### **V. Testing Requirements**

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

- 1.a. Emission Limitation:

The daily average concentration of hydrogen sulfide in the coke oven gas combusted in this emissions unit shall be less than 35 grains per 100 dscf of coke oven gas produced, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day. The limit of 35 grains per 100 dscf includes the sulfur concentration in the desulfurized coke oven gas and the sulfur concentration in the desulfurization tail gas, combined, measured by continuous emissions monitoring at the desulfurization plant (emissions unit P002).

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in Section A.III.1 and the reporting requirements in Section A.IV.1.

- 1.b. Emission Limitation:

Except as otherwise specified in paragraphs (A)(1) to (A)(3) of OAC rule 3745-17-07, visible particulate emissions from the excess coke gas flare shall not exceed twenty percent opacity as a six-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission observations performed in accordance with USEPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03 (B)(1), if required by the Ohio EPA.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Light Oil Recovery System (P801)

**Activity Description:** The By-products Plant Light oil recovery system includes process vessels, storage tanks, light oil sumps, pumps, valves, and sampling connectors in benzene service as regulated under 40 CFR 63 Subpart L

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
light oil recovery system including equipment in benzene service	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)	No detectible fugitive VOC emissions from the light oil recovery system including equipment in benzene service (see Section A.II.2. below).
	40 CFR Part 61, Subpart V [National Emission Standard for Equipment Leaks (Fugitive Emission Sources)]	Leak detection and repair program for fugitive VOC emissions from the light oil recovery system including equipment in benzene service (see Sections A.I.2.b through A.I.2.j below).
	OAC rule 3745-21-09 (DD)	Leak detection and repair program for fugitive VOC emissions from equipment in VOC service (see Section A.I.2.a below).

##### 2. Additional Terms and Conditions

- 2.a. A leak detection and repair program for the light oil recovery system in benzene service shall be implemented in accordance with the requirements specified in Sections A.III.19.a to A.III.19.j of this permit.

**2. Additional Terms and Conditions (continued)**

**2.b. Pressure relief devices in gas/vapor service (40 CFR 61.242-4):**

- i. Except during pressure releases, the pressure relief device shall be operated with no detectable emissions, as indicated by an instrument reading of less than five hundred ppmv above background, as measured by the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code.
- ii. No later than five calendar days after a pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code.
- iii. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions as soon as practicable, but no later than five calendar days after the pressure release, except for a delay of repair as provided in Section A.1.2.h of this permit.
- iv. Excluded from the requirements of Section A.1.2.b.i to A.1.2.b.iii of this permit is any pressure relief device that is equipped with a closed vent system capable of capturing leakage through the pressure relief device provided the closed vent system complies with the requirements specified in Section A.1.2.f of this permit.

**2.c. Sampling connection system (40 CFR 61.242-5):**

- i. Except as otherwise provided in Section A.1.2.c.iii of this permit, any sampling connection system in the process unit shall comply with the requirements specified in Section A.1.2.c.ii of this permit.
- ii. The sampling connection system shall be equipped with a closed purge system or a closed vent system that meets one of the following requirements:
  - (a) the purged process fluid is returned directly to the process line with zero VOC emissions to the ambient air;
  - (b) the purged process fluid is collected and recycled with zero VOC emissions to the ambient air; or
  - (c) the closed purge system or closed vent system is designed and operated to capture and transport all the purged process fluid to control equipment that meet the requirements specified in Section A.1.2.g of this permit.
- iii. Excluded from the requirements of Section A.1.2.c.ii of this permit is any sampling connection system that is an in-situ sampling system.

**2.d. Open-ended valves or lines (40 CFR 61.242-6):**

- i. Any open-ended valve or line in the process unit shall be equipped with a cap, blind flange, plug, or second valve and shall comply with the requirements specified in Sections A.1.2.d.ii to A.1.2.d.iv of this permit.
- ii. Except during operations requiring the flow of process fluid through the open-ended valve or line, the cap, blind flange, plug, or second valve shall seal the open end of the open-ended valve or line.
- iii. If equipped with a second valve, the open-ended valve or line shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
- iv. If a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall comply with Section A.1.2.d.ii of this permit at all other times.

**2. Additional Terms and Conditions (continued)**

**2.e.** Equipment designated for no detectable emissions:

- i. Any equipment (pump or valve) designated for no detectable emissions pursuant to Section A.III.19.c.i or A.III.19.c.iii of this permit shall comply with the requirements specified in Sections A.I.2.e.ii to A.I.2.e.iv of this permit.
- ii. The equipment shall be operated with no detectable emissions as indicated by an instrument reading of less than five hundred ppmv above background as measured by paragraph (F) of rule 3745-21-10 of the Administrative Code.
- iii. The equipment shall be tested for compliance with Section A.I.2.e.ii of this permit initially upon designation and annually.
- iv. The designation of the equipment shall be signed by the owner or operator of the equipment in the log kept pursuant to Section A.III.18.a.ii of this permit.

**2.f.** Closed vent systems:

- i. Any closed vent system that is used to comply with the requirements of Section A.III.19.c.ii or A.I.2.b.v of this permit shall comply with the requirements specified in Sections A.I.2.f.ii to A.I.2.f.iv of this permit.
- ii. The closed vent system shall be designed and operated with no detectable emissions, as indicated by an instrument reading of less than five hundred ppmv above background, as measured by the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code.
- iii. The closed vent system shall be tested for compliance with Section A.I.2.f.ii of this permit annually.
- iv. The closed vent system shall be operated at all times when emissions may be vented to it.

**2.g.** Control equipment:

- i. Any control equipment that is used to comply with the requirements of Section A.III.19.c.ii, A.I.2.b.v, A.I.2.c.ii.(c), or A.I.2.h.iv.(b) of this permit shall comply with the requirements specified in Sections A.I.2.g.ii to A.I.2.g.iv of this permit.
- ii. If the control equipment is a vapor recovery system, it shall be designed and operated to recover VOC emissions vented to it with an efficiency of at least ninety-five percent by weight.
- iii. The owner or operator of the control equipment shall monitor the control equipment to ensure that it is operated and maintained in conformance with its design.
- iv. The control equipment shall be operated at all times when emissions may be vented to it.

## **2. Additional Terms and Conditions (continued)**

### **2.h. Delay of repair:**

- i. A delay of repair that is employed pursuant to Section A.III.19.g or A.I.2.b.iv of this permit shall be allowed only as provided in Sections A.I.2.h.ii to A.I.2.h.vi of this permit of this rule.
- ii. A delay of repair shall be allowed if the repair is technically infeasible without a process unit shutdown. However, the repair shall occur before the end of the next process unit shutdown.
- iii. A delay of repair shall be allowed for a piece of equipment that is isolated from the process and that does not remain in VOC service (for example, isolated from the process and properly purged).
- iv. A delay of repair for a valve shall be allowed if:
  - (a) the owner or operator of the valve demonstrates that the emission of purged material resulting from immediate repair is greater than the emission likely to result from delay of repair; and
  - (b) when repair procedures are effected, the purged material is collected and recovered in control equipment that meets the requirements specified in Section A.I.2.g of this permit.
- v. A delay of repair for a pump shall be allowed if:
  - (a) the repair requires the use of a dual mechanical seal system and associated barrier fluid system; and
  - (b) the repair is completed as soon as practicable, but no later than six months after the leak was detected.
- vi. A delay of repair beyond a process unit shutdown shall be allowed for a valve if a valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. A delay of repair beyond the next process unit shutdown shall not be allowed for that valve unless the next process unit shutdown occurs sooner than six months after the first process unit shutdown.

## 2. Additional Terms and Conditions (continued)

### 2.i. Alternative monitoring schedule for valves based on a skip period:

i. The permittee may elect to implement an alternative monitoring schedule in lieu of the monitoring requirements specified in Section A.III.19.a.ii of this permit of this rule, as provided in Section A.III.19.b.iii of this permit. The alternative monitoring schedule shall be based on skipping quarterly monitoring periods provided the percentage of valves leaking is no more than 2.0. The owner or operator who elects to implement an alternative monitoring schedule shall comply with the requirements specified in Section A.I.2.i.ii to A.I.2.i.viii of this permit.

ii. The permittee must notify the director prior to implementing this alternative monitoring schedule. Such notification must identify which valves will be subject to this alternative monitoring schedule and which work practice within Section A.I.2.i.v of this permit will be implemented. Any valve in vacuum service, in heavy liquid service, or not in VOC service, shall be excluded from this alternative monitoring schedule.

iii. Any valve subject to this alternative monitoring schedule shall comply initially with the monitoring requirements specified in Section A.III.19.a.ii of this permit.

iv. Any valve subject to this alternative monitoring schedule shall continue to be subject to the requirements specified in Section A.III.19.e to A.III.19.k of this permit.

v. One of the following two alternative work practices for skipping monitoring periods may be implemented:

(a) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, a monitoring program may begin in which the first quarter of every two consecutive quarterly leak detection periods is skipped.

(b) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, a monitoring program may begin in which the first three quarters of every four consecutive quarterly periods is skipped.

vi. If the percentage of valves leaking is greater than 2.0, the owner or operator shall comply with the monitoring requirements as specified in Section A.III.19.a.ii of this permit, but may again elect to use this alternative monitoring schedule.

vii. The percentage of valves leaking shall be determined for the valves subject to this alternative monitoring schedule as the sum of the number of those valves found leaking during any portion of the current monitoring period and the number of those valves found leaking during a previous monitoring period for which repair has been delayed during the current monitoring period, divided by the total number of valves, and multiplied by one hundred.

viii. The following information pertaining to valves subject to this alternative monitoring schedule shall be recorded in a log that is kept in a readily accessible location:

(a) a schedule of monitoring; and

(b) the percentage of valves leaking during each monitoring period.

## **2. Additional Terms and Conditions (continued)**

- 2.j.** Alternative monitoring standard for valves based on the allowable percentage of valves leaking:
- i. The permittee may elect to implement an alternative monitoring standard in lieu of the monitoring requirements specified in Section A.III.19.a.ii of this permit, as provided in Section A.III.19.c.iv of this permit. The alternative monitoring standard shall be based on maintaining the percentage of valves leaking at 2.0 or less. Any owner or operator who elects to implement an alternative monitoring standard shall comply with the requirements specified in Sections A.I.2.k.ii to A.I.2.k.vii of this permit.
  - ii. The permittee must notify the director prior to implementing this alternative monitoring standard.
  - iii. All valves in gas/vapor service or in light liquid service in the process unit shall be subject to this alternative monitoring standard, except for those valves which are designated as unsafe to monitor as provided in Section A.III.19.b.ii of this permit, those valves not in VOC service, and those valves in vacuum service.
  - iv. The percentage of valves leaking, as determined in accordance with Section A.I.2.j.vi of this permit, shall not exceed 2.0. If the percentage of valves leaking is greater than 2.0, the owner or operator shall comply with the monitoring requirements as specified in Section A.III.19.a.ii of this permit, but may again elect to use this alternative monitoring standard.
  - v. All valves subject to this alternative monitoring standard shall be tested for compliance with Section A.I.2.j.iv of this permit initially upon implementation and annually.
  - vi. A compliance test shall be conducted in the following manner:
    - (a) All valves subject to this alternative monitoring standard shall be monitored for leaks within a one-week period by the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code.
    - (b) If an instrument reading of ten thousand ppmv or greater is measured, a leak is detected.
    - (c) The percentage of valves leaking shall be determined as the number of valves for which a leak is detected, divided by the number of valves monitored, and multiplied by one hundred.
  - vii. When a leak is detected as described in Section A.I.2.j.vi.(b) of this permit, the leaking valve shall be repaired in accordance with Sections A.III.19.f and A.III.19.g of this permit.

## **II. Operational Restrictions**

- 1.** The permittee shall enclose and seal all openings on each light oil recovery system process vessel in accordance with 40 CFR 61.132. The permittee shall enclose and seal the liquid surface in each light oil sump to form a closed system to contain emissions in accordance with 40 CFR 61.133.
- 2.** The permittee shall duct gases from each process vessel to the gas collection system, gas distribution system, or other enclosed point in the by-product recovery process where the benzene gas will be recovered or destroyed. This control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections. This system can be designed as a closed, positive pressure, gas blanketing system in accordance with the requirements of 40 CFR 61.132.
- 3.** Each piece of light oil recovery equipment in benzene service to which 40 CFR Part 61, Subparts L and V, apply shall be clearly marked so that it can be distinguished readily from other equipment in benzene service in accordance with 40 CFR 61.135(c).

## II. Operational Restrictions (continued)

4. The permittee may elect to install, operate, and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on each process vessel and light oil sump in the light oil recovery system. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use in accordance with 40 CFR 61.132 and 40 CFR 61.133.
5. The permittee shall equip each sampling connection system in the light oil recovery system with a closed-purge system or a closed-vent system. [40 CFR 61.242-5]
6. The permittee shall equip each open ended valve of light oil recovery equipment in benzene service with a cap, blind flange, plug or a second valve. [40 CFR 61.242-6]
7. The permittee may delay in the repair of equipment leaks in the light oil recovery system only if the following requirements are met:
  - a. Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
  - b. Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in benzene service.
  - c. Delay of repair for valves will be allowed if:
    - i. the permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
    - ii. when repair procedures are effected, the purged material is collected and recovered in a control system complying with 40 CFR 61.242-11.
  - d. Delay of repair for pumps will be allowed if repair is completed as soon as practicable but not later than 6 months after the leak was detected.
  - e. Delay of repair beyond a process unit shut-down will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

## II. Operational Restrictions (continued)

8. Control systems for the light oil recovery equipment in benzene service used to comply with 40 CFR Part 61, Subpart V shall comply with 40 CFR 61.242-11 as follows:
  - a. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater.
  - b. Closed-vent systems shall be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and by visual inspections, as determined by the methods specified as 40 CFR 61.245(c).
  - c. Closed-vent systems shall be monitored to determine compliance with this section initially in accordance with 40 CFR 61.05, annually, and at other times requested by the Director and/or Administrator.
  - d. Leaks, as indicated by an instrument reading greater than 500 ppm and visual inspections, shall be repaired as soon as practicable, but not later than 15 calendar days after the leak is detected.
  - e. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
  - f. Closed-vent systems used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

## III. Monitoring and/or Record Keeping Requirements

1. Semi-annually, or at any time after the control systems are repressurized with gas blanketing following the removal of a cover or the opening of an access hatch, the permittee shall monitor connections and seals on each control system per 40 CFR Part 60, Appendix A, Method 21 and procedures specified in 40 CFR 61.245(c), and visually inspect the light oil recovery system and control system ductwork for evidence of visible defects such as gaps and tears. A leak is detected when emissions are greater than 500 ppm above background levels, as measured by Method 21, or a visible defect is observed. Leaks detected shall be repaired within 15 days with the first attempt at repair no later than 5 days after leak detection. [40 CFR 61.132(b)]
2. Monitoring for VOC emissions for the light oil recovery equipment in benzene service required by 40 CFR Part 61, Subparts L and V, and these terms and conditions shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 21. The detection instrument shall meet the performance criteria of Method 21 and shall be calibrated prior to use on each day. The calibration gases shall be zero air and a mixture of methane or n-hexane and air at a concentration of approximately, but not less than, 10,000 ppm methane or n-hexane.
3. The permittee shall conduct a maintenance inspection of the control systems on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
4. The permittee shall monitor each coke oven gas exhauster on a quarterly basis to detect leaks. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. Leaks detected shall be repaired within 15 days with the first attempt at repair within 5 days. [40 CFR 61.135(d)]
5. The permittee shall identify light oil recovery system leaking equipment with weatherproof, readily visible identification including the equipment identification. Following the repair of a leaking valve, the identification on a valve may be removed after 2 successive months of monitoring and no leak has been detected. The identification on the equipment other than valves may be removed after the repair is complete. [40 CFR 61.246(b)]
6. In accordance with 40 CFR 61.242-4 (a) and (b), except during pressure releases, each pressure relief device in light oil recovery system gas service shall be operated with no detectible emissions ( less than 500 ppm above background ). After each pressure release, the pressure relief device shall return to a state of no detectible emissions as soon as possible, but not later than 5 days after the pressure release, except as provided in 40 CFR 61.242-10. The pressure relief device shall be monitored for no detectible emissions within 5 days after a pressure release.

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

7. In accordance with 40 CFR 61.242-7, the permittee shall monitor each valve in the light oil recovery system in benzene service on a monthly basis. If an instrument reading is greater than 10,000 ppm then a leak is detected. Repairs shall be made as soon as practical, but no later than 15 calendar days with the first attempt to repair within 5 days. Valves monitored for 2 successive months with no leak detected shall be monitored on the first month of every quarter until such time when a leak is detected and monthly monitoring is resumed. Valves which are designated as no detectible emissions per 61.246(e)(2) and which meet the requirements of section 61.242-7(f) shall be tested annually.
8. The permittee shall monitor any light oil recovery system pressure relief devices in liquid service, flanges and other connectors within 5 days if evidence of a potential leak is found visually, audibly or olfactorily. A monitored leak is detected if an instrument reading of 10,000 ppm or greater is measured. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 61.242-7(e). [40 CFR 61.242-8]
9. The permittee shall visually inspect pumps in the light oil recovery system weekly and monitor pumps monthly by methods specified in 40 CFR 61.245(b) unless a pump is exempt pursuant to 40 CFR 61.242-2. A monitored leak is detected if an instrument reading of 10,000 ppm or greater is measured, or liquids are visible dripping from the seal. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. If pumps are designated as no detectible emissions per 40 CFR 61.246(e)(2), then annual monitoring is required.
10. In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the light oil recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

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

- 11.** In accordance with 40 CFR 61.246(c), the permittee shall record and maintain the following for a minimum of 2 years for each leak detected for the light oil recovery equipment in benzene service:

  - a. the instrument identification number, operator identification, and equipment identification;
  - b. the date detected and the date of each attempt to repair;
  - c. the repair methods at each attempt to repair;
  - d. "Above 10,000" if the instrument reading of emissions is equal to or greater than 10,000 ppm;
  - e. "Repair Delayed" and the reason for delay, if the leak is not repaired within 15 calendar days after discovery of the leak;
  - f. the signature of the permittee or designate whose decision it was that a repair could not be completed without a process shutdown;
  - g. the expected date of successful repair if not repaired within 15 days;
  - h. the dates of process unit shutdowns that occur while the equipment is unrepaired; and
  - i. the date of successful repair.
- 12.** In accordance with 40 CFR 61.138(a) and 61.246(d), the permittee shall record and maintain the following information pertaining to the control systems for the light oil recovery equipment in benzene service:

  - a. detailed schematics, design specifications, piping and instrumentation diagrams, and the dates and descriptions of any changes made to the systems;
  - b. the periods when the closed vent systems are not operating properly; and
  - c. the dates of startup and shutdowns of the closed vent systems.
- 13.** In accordance with 40 CFR 61.246(e), the permittee shall record and maintain the following information:

  - a. a list of identification numbers for light oil recovery pumps, exhausters, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges or other connectors, product accumulator vessels in benzene service, and any control systems required by 40 CFR Part 61, Subpart V;
  - b. a list of identification numbers for light oil recovery pressure relief equipment subject to 40 CFR 61.242-4(a);
  - c. a list of identification numbers designated as no detectable emissions for light oil recovery equipment per 40 CFR 61.246(e)(2), signed by the permittee;
  - d. the dates of compliance tests, the background level during compliance tests, the maximum reading for each piece of light oil recovery equipment during compliance tests; and
  - e. a list of light oil recovery equipment in vacuum service.

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

14. In accordance with 40 CFR 61.246(f)(1), the permittee shall record and maintain the following information pertaining to light oil recovery valves in benzene service:
- a. a list of identification numbers for valves that are designated unsafe to monitor, an explanation of why the valve is unsafe to monitor, and the alternate plan for monitoring the valve; and
  - b. a list of identification numbers for valves that are designated difficult to monitor, an explanation of why the valve is difficult to monitor, and the alternate plan for monitoring the valve.
15. The permittee shall record and maintain the information and data used to demonstrate a piece of light oil recovery equipment is not in benzene service. [40 CFR 61.246(j)]
16. Alternative monitoring schedule for light oil recovery system valves in VOC service based on a skip period:
- The permittee may elect to implement an alternative monitoring schedule in lieu of the monitoring requirements specified in Section A.1.2.b.ii of this permit, as provided in Section A.1.2.c.iii of this permit. The alternative monitoring schedule shall be based on skipping quarterly monitoring periods provided the percentage of valves leaking is no more than 2.0. If the permittee elects to implement an alternative monitoring schedule, they shall comply with the requirements specified in Section A.1.2.i.ii to A.1.2.i.viii of this permit.
17. Alternative monitoring standard for light oil recovery system valves in VOC service based on the allowable percentage of valves leaking:
- The permittee may elect to implement an alternative monitoring standard in lieu of the monitoring requirements specified in Section A.1.2.b.ii of this permit, as provided in Section A.1.2.d.iv of this permit. The alternative monitoring standard shall be based on maintaining the percentage of valves leaking at 2.0 or less. If the permittee elects to implement an alternative monitoring standard, they shall comply with the requirements specified in Sections A.1.2.j.ii to A.1.2.j.vii of this permit.
18. The permittee shall comply with the record keeping requirements for the light oil recovery system specified in OAC rule 3745-21-09(DD) as follows:
- 18.a. The following information shall be recorded and kept in a readily accessible location:
- i. A list of identification numbers for equipment subject to the requirements of Sections A.1.2.a to A.1.2.j of this permit.
  - ii. A list of identification numbers for equipment designated for no detectable emissions as provided in Section A.1.2.e of this permit, and a signature of the permittee authorizing such designation.
  - iii. A list of identification numbers for pressure relief devices subject to Section A.1.2.b of this permit.
  - iv. A list of identification numbers for closed vent systems subject to Section A.1.2.f of this permit.
  - v. For compliance tests required under Section A.1.2.b.iii, A.1.2.e.iii and A.1.2.f.iii of this permit:
    - (a) the date of each compliance test;
    - (b) the background level measured during each compliance test; and
    - (c) the maximum instrument reading measured at the equipment during each compliance test.

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

- 18.b.** The following information pertaining to valves subject to an alternative monitoring schedule, as provided in Section A.III.19.b of this permit, shall be recorded in a log that is kept in a readily accessible location:
- i. a list of identification numbers for valves designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve;
  - ii. a list of identification numbers for valves designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the schedule for monitoring each valve; and
  - iii. a list of identification numbers for valves subject to the alternative monitoring schedule based on a skip period, a schedule for monitoring, and the percentage of valves leaking during each monitoring period.
- 18.c.** The following information pertaining to closed vent systems and control equipment described in Sections A.I.2.f and A.I.2.g of this permit shall be recorded and kept in a readily accessible location:
- i. detailed schematics, design specifications, and piping and instrumentation diagrams;
  - ii. the dates and descriptions of any changes in the design specifications;
  - iii. periods when the closed vent systems are not operated as designed; and
  - iv. dates of startups and shutdowns of the closed vent systems.
- 19.a.** Except as otherwise provided in Sections A.III.19.b and A.III.19.c of this permit, light oil recovery equipment in VOC service shall be monitored for leaks in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10 of the Administrative Code, as follows:
- i. Any pump in light liquid service shall be monitored monthly.
  - ii. Any valve in gas/vapor service or in light liquid service shall be monitored monthly, except that quarterly monitoring may be employed anytime after no leaks are detected during two consecutive months. The quarterly monitoring shall begin with the next calendar quarter following the two consecutive months of no detected leaks and shall be conducted in the first month of each calendar quarter. The quarterly monitoring may continue until a leak is detected, at which time monthly monitoring shall be employed again.
  - iii. Any of the following equipment shall be monitored within five calendar days after evidence of a leak or potential leak from the equipment by visual, audible, olfactory, or other detection method:
    - (a) any pump in heavy liquid service;
    - (b) any valve in heavy liquid service;
    - (c) any pressure relief device in light liquid service or in heavy liquid service; and
    - (d) any flange or other connector.
  - iv. Any equipment in which a leak is detected as described in Section A.III.19.e of this permit shall be monitored within five working days after each attempt to repair, unless the owner or operator believes that the equipment was not successfully repaired.

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

- 19.b.** For any valve in gas/vapor service or in light liquid service, an alternative monitoring schedule may be employed in lieu of the monitoring schedule specified in Section A.III.19.a.ii of this permit as follows:
- i. The valve is designated as difficult to monitor and is monitored each calendar year, provided the following conditions are met:
    - (a) Construction of the process unit commenced prior to May 9, 1986.
    - (b) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than six feet above a support surface.
    - (c) The owner or operator of the valve has a written plan that requires monitoring of the valve at least once per year.
  - ii. The valve is designated as unsafe to monitor and is monitored as frequently as practical during safe to monitor times, provided the following conditions are met:
    - (a) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring on a monthly basis.
    - (b) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practical during safe to monitor times.
  - iii. The valve is subject to an alternative monitoring schedule based on a skip period as specified in Section A.I.2.i of this permit.
- 19.c.** Excluded from the monitoring requirements of Section A.III.19.a of this permit are the following equipment:
- i. any pump that has no externally actuated shaft penetrating the pump housing and that is designated for no detectable emissions as provided in Section A.I.2.e of this permit;
  - ii. any pump that is equipped with a closed vent system capable of capturing any leakage from the pump seal provided the closed vent system complies with the requirements specified in Section A.I.2.f of this permit;
  - iii. any valve that has no externally actuated stem penetrating the valve and that is designated for no detectable emissions as provided in Section A.I.2.e of this permit; and
  - iv. any valve that is subject to the alternative monitoring standard for valves based on the percentage of valves leaking as provided in Section A.I.2.j of this permit.
- 19.d.** Any pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, unless the pump is equipped with a closed vent system capable of capturing any leakage from the pump seal and the closed vent system complies with the requirements specified in Section A.I.2.f of this permit.
- 19.e.** A leak is detected:
- i. when a concentration of ten thousand ppmv or greater is measured from a potential leak interface of any equipment that is monitored for leaks using the method in paragraph (F) of rule 3745-21-10 of the Administrative Code; and
  - ii. when there is an indication of liquids dripping from the seal of a pump in light liquid service.

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

- 19.f.** When a leak is detected as described in Section A.III.19.e of this permit, the following procedures shall be followed:
- i. A weatherproof and readily visible identification tag, marked with the equipment identification number, is immediately attached to the leaking equipment.
  - ii. A record of the leak and any attempt to repair the leak is entered into the leak repair log kept pursuant to Section A.III.19.i of this permit.
  - iii. The identification tag attached to the leaking equipment, other than a valve that is monitored pursuant to Section A.III.19.a.ii of this permit, may be removed after the leaking equipment is repaired.
  - iv. The identification tag attached to a leaking valve that is monitored pursuant to Section A.III.19.a.ii of this permit may be removed after the leaking valve is repaired, monitored for leaks for two consecutive months as specified in Section A.III.19.a.ii of this permit, and found to have no detected leaks during those two consecutive months.
- 19.g.** When a leak is detected as described in Section A.III.19.e of this permit, the leaking equipment shall be repaired as soon as practicable, but no later than fifteen calendar days after the leak is detected, except for a delay of repair as provided in Section A.I.2.h of this permit. Leaking equipment shall be deemed repaired if the maximum concentration measured pursuant to Section A.III.19.a.iv of this permit is less than ten thousand ppmv.
- 19.h.** When a leak is detected as described in Section A.III.19.e of this permit, a first attempt at repair shall be made no later than five calendar days after the leak is detected; and the first attempts at repair shall include, but are not limited to, the following best practices where practicable:
- i. tightening of bonnet bolts;
  - ii. replacement of bonnet bolts;
  - iii. tightening of packing gland nuts; and
  - iv. injection of lubricant into lubricated packing.

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

- 19.i.** When a leak is detected as described in Section A.III.19.e of this permit, the following information shall be recorded in a leak repair log:
- i. The identification number of the leaking equipment and, for leaks based on monitoring, the identification numbers of the leak detection instrument and its operator.
  - ii. The basis for the detection of the leak; for example, monitoring, visual inspection, or sensor.
  - iii. The date on which the leak was detected and the date of each attempt to repair the leaking equipment.
  - iv. The methods of repair applied in each attempt to repair the leaking equipment.
  - v. One of the following entries within five working days after each attempt to repair the leaking equipment:
    - (a) "not monitored," denoting the leaking equipment was presumed to still be leaking and it was not monitored; or
    - (b) if the leaking equipment was monitored with a leak detection instrument, the maximum concentration that was measured as follows:
      - (i.) the actual reading in ppmv; or
      - (ii.) "below 10,000," denoting less than ten thousand ppmv; or
      - (iii.) "above 10,000," denoting not less than ten thousand ppmv.
  - vi. If the leak is not repaired within fifteen calendar days after the date on which it was detected:
    - (a) "repair delayed" and the reason for the delay;
    - (b) if repair is being delayed until the next process unit shutdown due to technical infeasibility of repair, the signature of the owner or operator whose decision it was that repair is technically infeasible without a process unit shutdown;
    - (c) the expected date of successful repair of the leak; and
    - (d) the dates of process unit shutdowns that occur while the leaking equipment is unrepaired.
  - vii. The date on which the leak was successfully repaired.
- 19.j.** The leak repair log shall be retained by the owner or operator of the process unit in a readily accessible location for a minimum of two years after the date on which the record was made.

#### **IV. Reporting Requirements**

1. In accordance with 40 CFR 61.138(f) and 40 CFR 61.247(b), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in the light oil recovery system or control system ductwork;
  - b. the number of leaks detected and repaired;
  - c. a description of any control system abnormalities found during each annual maintenance inspection which occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period;
  - e. the number of exhausters for which leaks were detected, the number of exhausters for which leaks were repaired, and the results of any performance tests determining compliance with 40 CFR 61.135(g);
  - f. the process unit identification;
  - g. for each month during the reporting period, the number of light oil recovery system valves and pumps for which leaks were detected, the number of valves and pumps for which leaks were not repaired, and the facts explaining why a process shutdown was not feasible and therefore delaying repair;
  - h. the dates of process unit shutdowns during the reporting period;
  - i. the changes to the light oil recovery system or control systems which have occurred since the initial report or the last revision; and
  - j. the results of performance tests and monitoring to determine compliance with the no detectible emissions limitation within the reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis. [40 CFR 61.138(f)(6)]
3. All semiannual reports required under 40 CFR 61.138 and 40 CFR 61.247 shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.
4. The permittee shall comply with the reporting requirements for the light oil recovery system specified in OAC rule 3745-21-09(DD) as follows:
  - 4.a. For compliance tests required under Sections A.1.2.e.iii and A.1.2.f.iii of this permit, the requirements of paragraphs (A)(3) and (A)(4) of rule 3745-21-10 of the Administrative Code (pertaining to notification of intent to test) shall be met. The results of such compliance tests shall be reported to the Ohio EPA Northeast District Office within thirty days after the test date.
  - 4.b. The results of compliance tests required under Section A.1.2.b.iii of this permit shall be reported semiannually to the Ohio EPA Northeast District Office. The semiannual reports shall be submitted by the first day of February and August and shall include information for the preceding semiannual period.

#### **IV. Reporting Requirements (continued)**

- 4.c.** Semiannual reports for the monitoring and record keeping in Section A.III.19 of this permit shall be submitted to the the Ohio EPA Northeast District Office by the first day of February and August and shall include the following information for the preceding semiannual periods:
- i. The process unit identification.
  - ii. The number of pumps in light liquid service excluding those pumps designated for no detectable emissions under the provision of Section A.III.19.c.i of this permit.
  - iii. The number of valves in gas/vapor service or in light liquid service excluding those valves designated for no detectable emission under the provision of Section A.III.19.c.iii of this permit and those valves subject to the alternative standard for monitoring under the provision of Section A.III.19.c.iv of this permit.
  - iv. For each month during the semiannual period:
    - (a) the number of pumps in light liquid service for which leaks were detected as described in Section A.III.19.e of this permit;
    - (b) the number of pumps in light liquid service for which leaks were not repaired within fifteen calendar days after the date of leak detection;
    - (c) the number of valves in gas/vapor service or in light liquid service for which leaks were detected as described in Section A.III.19.e of this permit;
    - (d) the number of valves in gas/vapor service or in light liquid service for which leaks were not repaired within fifteen calendar days after the date of leak detection; and
    - (e) the facts that explain each delay of repair allowed pursuant to Section A.I.2.h of this permit.
  - v. The dates of process unit shutdowns that occurred within the semiannual period.

#### **V. Testing Requirements**

- 1.** Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
- 1.a.** Emission Limitation:
- No detectible fugitive VOC emissions from the light oil recovery system including equipment in benzene service. [40 CFR Part 61, Subpart L]
- Applicable Compliance Method:
- Compliance shall be demonstrated based on the requirements in Section A.2.b and the reporting requirements in Sections A.IV.1 through 3.
- 1.b.** Emission Limitation:
- Leak detection and repair program for fugitive VOC emissions from the light oil recovery system including equipment in benzene service. [40 CFR Part 61, Subpart V]
- Applicable Compliance Method:
- Compliance shall be demonstrated based on the requirements in Sections A.I.2.c through j and the reporting requirements in Sections A.IV.1 through 3.

**V. Testing Requirements (continued)**

**1.c. Emission Limitation:**

Leak detection and repair program for fugitive VOC emissions from equipment in VOC service. [OAC rule 3745-21-09 (DD)]

Applicable Compliance Method:

Compliance shall be demonstrated based on the leak detection and repair program specified in Sections A.I.2.a, required monitoring and record keeping specified in Sections A.III.19.a through j and the reporting requirements in Section A.IV.4.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tar Recovery System (P802)

**Activity Description:** Tar Recovery system includes Tar Decanter #1,#2,#3, flushing liquor collection tanks, exhauster drain seal pots (#1,#2,#3).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tar recovery system	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)	No detectible fugitive VOC emissions from the tar recovery system (see Sections A.I.2.a, A.I.2.b, and A.I.2.c below).

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on each tar recovery system process vessel in accordance with 40 CFR 61.132. The permittee may elect to leave open to the atmosphere the portion of the liquid surface in each tar decanter necessary to permit operation of a sludge conveyor in accordance with 40 CFR 61.132(a)(2)(ii). If the permittee elects to maintain an opening on part of the liquid surface of the tar decanter, the permittee shall install, operate, and maintain a water leg seal on the tar decanter roof near the sludge discharge chute to ensure enclosure of the major portion of liquid surface not necessary for the operation of the sludge conveyor.
- 2.b. The permittee shall duct gases from each process vessel and tar-intercepting sump to the gas collection system, gas distribution system, or other enclosed point in the by-product recovery process where the benzene in the gas will be recovered or destroyed. This control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections. This system can be designed as a closed, positive pressure, gas blanketing system in accordance with the requirements of 40 CFR 61.132.
- 2.c. The permittee may elect to install, operate, and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on each tar recovery system process vessel. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. Semi-annually, or at any time after the control system is repressurized with gas blanketing following the removal of a cover or the opening of an access hatch; the permittee shall monitor connections and seals on the affected control system per 40 CFR Part 60, Appendix A, Method 21 and procedures specified in 40 CFR 61.245(c), and visually inspect the tar recovery system and control system ductwork for evidence of visible defects such as gaps and tears. A leak is detected when emissions are greater than 500 ppm above background levels, as measured by Method 21, or a visible defect is observed. Leaks detected shall be repaired within 15 days with the first attempt at repair no later than 5 days after leak detection. [40 CFR 61.132(b)]
2. The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
3. In accordance with 40 CFR 61.138(a), the following information pertaining to the design of the control system shall be recorded and kept in a readily accessible location:
  - a. Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - b. The dates and descriptions of any changes in the design specifications.
4. In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

### IV. Reporting Requirements

1. In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a brief description of visible defects observed in the tar recovery system or control system ductwork;
  - b. the number of leaks detected and repaired;
  - c. a description of any control system abnormalities found during each annual maintenance inspection which occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

## **V. Testing Requirements**

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

1.a. Emission Limitation:

No detectible fugitive VOC emissions from the tar recovery system.  
[40 CFR Part 61, Subpart L]

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in Section A.III.4.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Coke handling (P901)  
**Activity Description:** Coke handling

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coke plant coke handling	OAC rule 3745-17-07 (B)(8)(b)	Twenty percent opacity as a three-minute average.
	OAC rule 3745-17-08 (B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.d).

**2. Additional Terms and Conditions**

- 2.a. The material handling operation(s) that are covered by this permit and subject to the requirements of OAC rules 3745-17- 07 and 3745-17-08 are listed below:
  - i. coke unloading (quench car to wharf),
  - ii. coke unloading (truck unloading),
  - iii. coke belt conveyors (no's. 3, 4, 5, 7, 8 & 9),
  - iv. coke conveyor transfer points (belt to belt), and
  - v. coke loading (railroad car and/or truck).

## **2. Additional Terms and Conditions (continued)**

**2.b.** The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) 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 perform the following control measure(s) to ensure compliance:

i. Material handling operation: coke unloading (quench car to wharf)

Adequate quenching with water of the hot coke.

ii. Material handling operation: coke unloading (truck unloading)

Adequate quenching with water of the hot coke.

iii. Material handling operation: coke belt conveyors (no's. 3, 4, 5, 7, 8 & 9)

Employ and maintain the existing partial enclosures and conveyor belt covers.

iv. Material handling operation: coke conveyor transfer points (belt to belt)

Employ and maintain the existing belt transfer point partial enclosures.

v. Material handling operation: coke loading (railroad car and/or truck)

Employ and maintain the existing building partial enclosure.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c.** For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.

**2.d.** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## **II. Operational Restrictions**

**None**

### III. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
a. coke unloading (quench car to wharf)	weekly
b. coke unloading (truck unloading)	weekly
c. coke belt conveyors (no's. 3, 4, 5, 7, 8 & 9)	weekly
d. coke conveyor transfer points (belt to belt)	weekly
e. coke loading	weekly (railroad car and/or truck)

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - 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.

The information in 4.d shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

### V. Testing Requirements

1. Compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 9 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)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

Facility Name: **LTV STEEL COMPANY, INC. WARREN COKE PLANT**  
Facility ID: **02-78-00-0648**  
Emissions Unit: **Coke handling (P901)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tar Tank T-1/ Back-up ammonia liquor tank (T001)  
**Activity Description:** Tar Tank #1, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tar tank T-1, 360,000-gallon capacity	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)	No detectible fugitive VOC emissions from tar storage tank T-1 when the tank contains tar or "unstripped" ammonia liquor. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.e below.
	OAC rule 3745-21-07(D)	The requirements established pursuant to this rule are less stringent than the requirements of 40 CFR Part 61, Subpart L.
	OAC rule 3745-31-05(A)(3) PTI 02-14333	VOC emissions shall not exceed 4.2 TPY.
		The requirements of this rule also include compliance with the requirements of 40 CFR Part 61, Subpart L.
	40 CFR Part 60, Subpart Ka	None. See A.I.2.d below.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on tar tank T-1 when the tank contains tar or "unstripped" ammonia liquor.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for tar tank T-1 in accordance with the requirements of 40 CFR 61.132 when the tank contains tar or "unstripped" ammonia liquor. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on tar tank T-1 when the tank contains tar or "unstripped" ammonia liquor. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The requirements of 40 CFR Part 60, Subpart Ka, do not apply to this emissions unit based upon the exemption in 40 CFR 60.110a(b).

## **2. Additional Terms and Conditions (continued)**

- 2.e.** The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

## **II. Operational Restrictions**

**None**

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.
  - 1.a.** If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
  - 1.b.** If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
  - 1.c.** When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
  - 1.d.** A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
- 2.** The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
- 3.** In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for tar tank T-1:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
- 4.** In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

#### **IV. Reporting Requirements**

1. In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in tar tank T-1, gas blanketing control system or ductwork;
  - b. the number of tar tank T-1, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of tar tank T-1 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

#### **V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:

no detectible fugitive VOC emissions from tar tank T-1 when the tank contains tar or "un-stripped" ammonia liquor

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.
  - 1.b. Emission Limitation:

VOC emissions shall not exceed 4.2 TPY.

Applicable Compliance Method:

To demonstrate compliance with the annual limit of 4.2 TPY for VOC, the permittee shall calculate the annual VOC emissions in tons per year using AP-42, Section 7.1.3 (September 1997) or Tanks 4.0, a program for estimating tank emissions developed by the American Petroleum Institute, or future editions of AP-42 and the Tanks software. The permittee may also calculate emissions by alternate methods with prior approval from the Ohio EPA, Northeast District Office.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tar Tank T-2/ Back-up ammonia liquor tank (T002)  
**Activity Description:** Tar Tank #2, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tar tank T-2, 500,000-gallon capacity	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)  OAC rule 3745-21-07(D)	No detectible fugitive VOC emissions from tar storage tank T-2 when the tank contains tar or "unstripped" ammonia liquor. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.d below.  The requirements established pursuant to this rule are less stringent than the requirements of 40 CFR Part 61, Subpart L.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on tar tank T-2 when the tank contains tar or "unstripped" ammonia liquor.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for tar tank T-2 in accordance with the requirements of 40 CFR 61.132 when the tank contains tar or "unstripped" ammonia liquor. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on tar tank T-2 when the tank contains tar or "unstripped" ammonia liquor. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.
  - 1.a. If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
  - 1.b. If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
  - 1.c. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
  - 1.d. A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
2. The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
3. In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for tar tank T-2:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
4. In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

#### **IV. Reporting Requirements**

1. In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in tar tank T-2, gas blanketing control system or ductwork;
  - b. the number of tar tank T-2, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of tar tank T-2 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

#### **V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:  
  
no detectible fugitive VOC emissions from tar tank T-2 when the tank contains tar or "un-stripped" ammonia liquor  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tar Tank T-3 / Back-up ammonia liquor tank (T003)  
**Activity Description:** Tar Tank #3, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tar tank T-3, 250,000-gallon capacity	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)  OAC rule 3745-21-07(D)	No detectible fugitive VOC emissions from tar storage tank T-3 when the tank contains tar or "unstripped" ammonia liquor. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.d below.  The requirements established pursuant to this rule are less stringent than the requirements of 40 CFR Part 61, Subpart L.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on tar tank T-3 when the tank contains tar or "unstripped" ammonia liquor.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for tar tank T-3 in accordance with the requirements of 40 CFR 61.132 when the tank contains tar or "unstripped" ammonia liquor. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on tar tank T-3 when the tank contains tar or "unstripped" ammonia liquor. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.
  - 1.a. If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
  - 1.b. If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
  - 1.c. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
  - 1.d. A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
2. The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
3. In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for tar tank T-3:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
4. In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

#### **IV. Reporting Requirements**

1. In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in tar tank T-3, gas blanketing control system or ductwork;
  - b. the number of tar tank T-3, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of tar tank T-3 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

#### **V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:

no detectible fugitive VOC emissions from tar tank T-3 when the tank contains tar or "un-stripped" ammonia liquor

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tar Tank T-4 / Back-up ammonia liquor tank (T004)  
**Activity Description:** Tar Tank #4, including associated day tank. Tank also serves as back-up emergency ammonia liquor storage.

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
tar tank T-4, 250,000-gallon capacity	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)  OAC rule 3745-21-07(D)	No detectible fugitive VOC emissions from tar storage tank T-4 when the tank contains tar or "unstripped" ammonia liquor. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.d below.  The requirements established pursuant to this rule are less stringent than the requirements of 40 CFR Part 61, Subpart L.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on tar tank T-4 when the tank contains tar or "unstripped" ammonia liquor.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for tar tank T-4 in accordance with the requirements of 40 CFR 61.132 when the tank contains tar or "unstripped" ammonia liquor. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on tar tank T-4 when the tank contains tar or "unstripped" ammonia liquor. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

##### II. Operational Restrictions

None

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.
  - 1.a. If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
  - 1.b. If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
  - 1.c. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
  - 1.d. A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
2. The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
3. In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for tar tank T-4:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
4. In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

#### **IV. Reporting Requirements**

1. In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in tar tank T-4, gas blanketing control system or ductwork;
  - b. the number of tar tank T-4, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of tar tank T-4 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.
2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

#### **V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:

no detectible fugitive VOC emissions from tar tank T-4 when the tank contains tar or "un-stripped" ammonia liquor

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** TONH3-1 Wastewater Treatment Tank (300,000 gallon) (T011)

**Activity Description:** "Un-stripped" ammonia wastewater treatment storage tank, fixed roof, equipped with vapor collection system (300,000 gallons).

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
"Un-stripped" ammonia wastewater treatment storage tank TONH3-1	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)	No detectable fugitive VOC emissions from the "unstripped" ammonia wastewater treatment storage tank TONH3-1. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.d below.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on the "unstripped" ammonia wastewater treatment storage tank TONH3-1.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for the "unstripped" ammonia wastewater treatment storage tank TONH3-1 in accordance with the requirements of 40 CFR 61.132. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on the "unstripped" ammonia wastewater treatment storage tank TONH3-1. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

#### II. Operational Restrictions

None

#### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.

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

- 1.a.** If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
- 1.b.** If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
- 1.c.** When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
- 1.d.** A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
- 2.** The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
- 3.** In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for storage tank TONH3-1:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
- 4.** In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

### **IV. Reporting Requirements**

- 1.** In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in storage tank TONH3-1, the gas blanketing control system or ductwork;
  - b. the number of storage tank TONH3-1, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of storage tank TONH3-1 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.

**IV. Reporting Requirements (continued)**

2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

**V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a. Emission Limitation:  
  
no detectible fugitive VOC emissions from the "unstripped" ammonia wastewater treatment storage tank TONH3-  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** T0NH3-2 Wastewater Treatment Tank (300,000 gallon) (T012)  
**Activity Description:** "Unstripped" ammonia wastewater treatment storage tank, fixed roof, equipped with vapor collection system (300,000 gallons)..

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
"Un-stripped" ammonia wastewater treatment storage tank T0NH3-2	40 CFR Part 61, Subpart L (National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants)	No detectible fugitive VOC emissions from the "unstripped" ammonia wastewater treatment storage tank T0NH3-1. See A.I.2.a, A.I.2.b, A.I.2.c, and A.I.2.d below.

##### 2. Additional Terms and Conditions

- 2.a. The permittee shall enclose and seal all openings on the "unstripped" ammonia wastewater treatment storage tank T0NH3-2.
- 2.b. The permittee shall operate and maintain a closed, positive pressure, gas blanketing control system for the "unstripped" ammonia wastewater treatment storage tank T0NH3-2 in accordance with the requirements of 40 CFR 61.132. The gas blanketing control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections.
- 2.c. The permittee may operate and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on the "unstripped" ammonia wastewater treatment storage tank T0NH3-2. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
- 2.d. The conditions listed in Sections A.I.1, A.I.2.a, A.I.2.b, A.I.2.c, A.III, A.IV and A.V do not apply when the emissions unit does not contain a material regulated by 40 CFR Part 61, Subpart L.

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the connections and seals on the gas blanketing system to determine if it is operating with no detectable emissions, using Reference Method 21 (40 CFR part 60, appendix A) and procedures specified in 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.

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

- 1.a.** If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Reference Method 21, a leak is detected.
- 1.b.** If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
- 1.c.** When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
- 1.d.** A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
- 2.** The permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The owner or operator shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [40 CFR 61.132(c)]
- 3.** In accordance with 40 CFR 61.138(a), the permittee shall record and maintain the following information pertaining to the gas blanketing control system for storage tank TONH3-2:
  - a. detailed schematics, design specifications, piping and instrumentation diagrams; and
  - b. the dates and descriptions of any changes in the design specifications.
- 4.** In accordance with 40 CFR 61.138(b), the following information pertaining to sources subject to 40 CFR 61.132 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - a. The date of the inspection and the name of the inspector.
  - b. A brief description of each visible defect in the tar recovery system or control system and the method and date of repair of the defect.
  - c. The presence of a leak, as measured using the method described in 40 CFR 61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak.
  - d. A brief description of any control system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

### **IV. Reporting Requirements**

- 1.** In accordance with 40 CFR 61.138(f), the permittee shall submit semi-annual reports which include the following information:
  - a. a description of visible defects observed in storage tank TONH3-2, the gas blanketing control system or ductwork;
  - b. the number of storage tank TONH3-2, gas blanketing control system and ductwork leaks detected and repaired;
  - c. a description of storage tank TONH3-2 and gas blanketing control system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made; and
  - d. a statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semi-annual reporting period.

**IV. Reporting Requirements (continued)**

2. The permittee shall submit revisions to the initial statement which was submitted in compliance with 40 CFR 61.138(e) on a semi-annual basis if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 61.138(f)(6)]
3. All semiannual reports shall be submitted to the Ohio EPA Northeast District Office by the first day of February and August and shall include information for the preceding semiannual period.

**V. Testing Requirements**

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

**1.a. Emission Limitation:**

no detectible fugitive VOC emissions from the "unstripped" ammonia wastewater treatment storage tank TONH3-;

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements in section A.III.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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