



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
LUCAS COUNTY**

**CERTIFIED MAIL**

Street Address:

Mailing Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Lazarus Gov.  
Center

**Application No:** 04-01471  
**Fac ID:** 0448020007

**DATE:** 5/17/2007

BP Products North America Inc  
Allen Ellett  
696  
Toledo, OH 43697-0696

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$6000** will be due. Please do not submit any payment now.

The Ohio EPA is urging 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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

TDES

Toledo Metro Area Council of Gov.

IN MI  
**LUCAS COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 04-01471 FOR AN AIR CONTAMINANT SOURCE  
FOR BP Products North America Inc**

On 5/17/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **BP Products North America Inc**, located at **4001 Cedar Point Road, Oregon, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 04-01471:

**Modification to Coker 3 (P036) to reduce cycle time from 18-20 hrs to 14 hrs and affected emission units.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Karen Granata, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604 [(419)936-3015]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 04-01471**

Application Number: 04-01471  
Facility ID: 0448020007  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: BP Products North America Inc  
Person to Contact: Allen Ellett  
Address: 696  
Toledo, OH 43697-0696

Location of proposed air contaminant source(s) [emissions unit(s)]:

**4001 Cedar Point Road  
Oregon, Ohio**

Description of proposed emissions unit(s):

**Modification to Coker 3 (P036) to reduce cycle time from 18-20 hrs to 14 hrs and affected emission units.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Chris Korleski  
Director

## A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **2. Scheduled Maintenance/Malfunction Reporting**

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

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

## **3. Risk Management Plans**

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

permittee shall comply with the requirement to register such a plan.

#### 4. Title IV Provisions

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

#### 5. Severability Clause

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

#### 6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- 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 ORC section 3704.08.
  - 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.

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- 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.

#### **10. Permit-To-Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **12. 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.

#### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in

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this permit.**

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**B. State Only Enforceable Permit-To-Install General Terms and Conditions**

**1. Compliance Requirements**

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

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**3. 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.

**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of

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installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**5. Construction of New Sources(s)**

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

**6. Public Disclosure**

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

**7. Applicability**

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

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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**9. 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**BP Products North America Inc****Facility ID: 0448020007****PTI Application: 04-01471****Issued: To be entered upon final issuance****C. Permit-To-Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<b><u>Pollutant</u></b>	<b><u>Tons Per Year</u></b>
PM <sub>10</sub>	16.34
SO <sub>2</sub>	20.46
NO <sub>x</sub>	65.48
CO	82.96
VOC	19.28

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS****A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. The permittee shall monitor the emissions of SO<sub>2</sub> that is emitted by any emissions units associated with the "Coker Delta Valves Project" permit to install (B032, B034, B035, P009, P037); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of ten years following resumption of regular operations after the change if the NSR project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.
2. If the unit is an existing unit, the permittee shall submit a report to the Toledo Division of Environmental Services if the annual emissions, in tons per year, from the Coker Delta Valves Project (PTI 04-01471), exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (C)(1)(c) of OAC rule 3745-31-10, by a significant amount for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (C)(1)(c) of OAC rule 3745-31-10. The permittee's pre-construction projection is listed in Table 1 below. Such report shall be submitted to the Toledo Division of Environmental Services within 60 days after the end of such year. The report shall contain the following:
  - a. The name, address and telephone number of the major stationary source;
  - b. The annual emissions as calculated pursuant to Section A.1; and
  - c. Any other information that the permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

**Table 1 NSR for SO<sub>2</sub> - Baseline Actual Emissions vs Potential/Projected Actual Emissions**

	Baseline Actual Emis. (tons/yr)	*Potential Emissions **Proj. Actual Emis. (tons/yr)	Incremental Difference (tons/yr)
	SO <sub>2</sub>	SO <sub>2</sub>	SO <sub>2</sub>
Affected Sources *			
Coker 3 Heater (B032)	4.17	20.13	15.97
SRU 1,2, &3 (P009 & P037)	32.97	96.94	63.97

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Coker 2 Heater (B017)	1.01	6.30	5.30
East & West Alstom Boiler (B034 & B035)	n/a	n/a	0.48
<b>Coker Delta Valves Project Totals</b>	<b>38.15</b>	<b>123.37</b>	<b>85.72</b>

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment -(B032) - 230 mmBtu per hour heater fired with refinery fuel gas and/or natural gas (Coker 3 Furnace)**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, unless otherwise specified by the rule.
OAC rule 3745-17-10(B)	See section A.I.2.a.
OAC rule 3745-18-54(W)(1)	See section A.I.2.a.
OAC rule 3745-21-07(B)	See section A.I.2.d
OAC rule 3745-31-05(A)(3)	18.94 pounds per hour and 82.96 tons per rolling, 12-month period of carbon monoxide (CO)  14.95 pound per hour and 65.48 tons per rolling, 12-month period of nitrogen oxides (NO <sub>x</sub> )  1.71 pound per hour and 7.51 tons per rolling, 12-month period of PM <sub>10</sub> emissions  4.60 pound per hour and 20.46 tons sulfur dioxide (SO <sub>2</sub> ) per rolling, 12-month period  1.24 pound per hour and 5.43 ton per rolling, 12-month period of volatile organic compounds (VOC)  See section A.I.2.b.
OAC rule 3745-21-08(B)	See section A.I.2.e.
40 CFR Part 60, Subpart J	See section A.I.2.c.
40 CFR Part 63, Subpart DDDDD	See section A.I.2.f.

Emissions Unit ID: B032

**2. Additional Terms and Conditions**

- 2.a** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart J.
- 2.c** The permittee shall not burn in this emissions unit any refinery fuel gas that has a volume-weighted, rolling, 3-hour average H<sub>2</sub>S concentration greater than 230 milligrams per dry standard cubic meter (0.10 grain per dry standard cubic foot) or a rolling 3-hour average SO<sub>2</sub> concentration of 20 parts per million by volume, dry basis, adjusted to 0% excess air, depending on which monitoring system is chosen..
- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
- 2.e** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f** The permittee shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD; - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, upon start-up of B032.

**II. Operational Restrictions**

1. The permittee shall only burn natural gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas and/or refinery fuel gas burned in this emissions unit shall meet, on an "as burned" basis, a sulfur content that is sufficient to comply with allowable hydrogen sulfide emission limitation of 230 milligrams per dry standard cubic

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meter (0.10 grain per dry standard cubic foot) as a volume-weighted, rolling, 3-hour average.

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**III. Monitoring and/or Recordkeeping Requirements**

1. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type, quantity, and heating value in Btu/dscf of the fuel burned.
2. The permittee shall calibrate, maintain and operate a continuous monitoring system for measurement of the H<sub>2</sub>S content in the fuel gas before being burned in this fuel gas combustion device or a continuous monitoring system for measuring the SO<sub>2</sub> and O<sub>2</sub> concentrations in the stack..
  - a. The H<sub>2</sub>S monitoring device shall continuously monitor and record the concentration (dry basis) of H<sub>2</sub>S in fuel gases before being burned in any fuel gas combustion device. The SO<sub>2</sub> monitoring device shall continuously monitor and record the concentration (dry basis) of the SO<sub>2</sub> and O<sub>2</sub> content of the stack gas before it is exhausted to the atmosphere.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S or 50 ppm SO<sub>2</sub> and 10% oxygen.
  - c. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H<sub>2</sub>S in the fuel gas being burned.
  - d. The performance evaluations for this H<sub>2</sub>S monitor shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations. Performance evaluations for an SO<sub>2</sub> monitor shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.
3. The permittee must automatically check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of 40 CFR Part 60. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.
4. Monitors that automatically adjust the data to the corrected calibration values (e.g., microprocessor control) must be programmed to record the unadjusted concentration measured in the calibration drift (CD) prior to resetting the calibration, if performed, or

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record the amount of adjustment.

5. If either the zero (or low-level) or high-level CD result exceeds twice the applicable drift specification in Appendix B of 40 CFR part 60 for five, consecutive, daily periods, the CEMS is out-of-control. If either the zero (or low-level) or high-level CD result exceeds four times the applicable drift specification in 40 CFR Part 60, Appendix B during any CD check, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary corrective action. Following corrective action, repeat the CD checks.
6. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required in 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: the continuous monitoring system for measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15- minute period.
7. One-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit.
8. The permittee must implement a quality control program. As a minimum, each quality control program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
  - a. Calibration of CEMS.
  - b. CD determination and adjustment of CEMS.
  - c. Preventive maintenance of CEMS (including spare parts inventory).
  - d. Data recording, calculations, and reporting.
  - e. Accuracy audit procedures including sampling and analysis methods.
  - f. Program of corrective action for malfunctioning CEMS.

As described in Section 5.2 of 40 CFR Part 60, Appendix F Procedure 1, whenever excessive inaccuracies occur for two consecutive quarters, the source permittee must revise the current written procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.

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9. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.
10. The permittee shall monitor and record the hourly, daily and monthly average firing rate in terms of standard cubic feet per hour. From these data, the permittee shall calculate and maintain records of the monthly and rolling 12-month total CO, NO<sub>x</sub>, PE, and VOC emission rates in units of tons per month and tons per year in accordance with the procedure outlined in section V.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas and/or natural gas was burned in this emissions unit. Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each day when the CO, NO<sub>x</sub>, PE, and/or VOC pound per hour and/or rolling, 12-month emission limitations specified under A.I.1. Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.
3. The permittee shall submit an H<sub>2</sub>S or SO<sub>2</sub> excess emissions and monitoring systems performance report and/or a summary report form to the Toledo Division of Environmental Services quarterly, or except when the Administrator of USEPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit. All reports shall be postmarked by the 30th day following the end of each three-month period. Excess emissions are each rolling 3-hour average H<sub>2</sub>S concentration greater than 0.10 grain per dry standard cubic foot of fuel gas burned or a rolling 3-hour average SO<sub>2</sub> concentration of 20 ppmv, dry basis, adjusted to 0% excess air. Written reports of excess emissions shall include the following information:
  - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and

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- cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  - d. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
4. The summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7 unless otherwise specified by the Administrator of USEPA. One summary report form shall be submitted for each pollutant monitored at each affected facility.
    - a. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator of USEPA.
    - b. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
  5. The permittee shall submit a quarterly report for each CEMS containing the accuracy results from Section 6 and the CD assessment results from Section 4 of 40 CFR Part 60, Appendix F Procedure 1. Report the drift and accuracy information as a Data Assessment Report (DAR), and include one copy of this DAR for each quarterly audit with the report of emissions required under the applicable subparts of this part. As a minimum, the DAR must contain the following information:
    - a. Permittee name and address.
    - b. Identification and location of monitors in the CEMS.
    - c. Manufacturer and model number of each monitor in the CEMS.

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- d. Assessment of CEMS data accuracy and date of assessment as determined by a Relative Accuracy Test Audit (RATA), Relative Accuracy Audit (RAA), or Cylinder Gas Audit (CGA) described in Section 5 of 40 CFR Part 60, Appendix F Procedure 1 including the relative accuracy for the RATA, the Accuracy (A) for the RAA or CGA, the Reference Method (RM) results, the cylinder gases certified values, the CEMS responses, and the calculations results as defined in Section 6 of 40 CFR Part 60, Appendix F Procedure 1. If the accuracy audit results show the CEMS to be out-of-control, the CEMS operator shall report both the audit results showing the CEMS to be out-of-control and the results of the audit following corrective action showing the CEMS to be operating within specifications.
- e. Results from USEPA performance audit samples described in Section 5 of 40 CFR Part 60, Appendix F Procedure 1 and the applicable RM's.
- f. Summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5 of 40 CFR Part 60, Appendix F Procedure 1.

An example of a DAR format is shown in Figure 1 of 40 CFR Part 60, Appendix F Procedure 1.

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**V. Testing Requirements**

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

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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

b. Emission Limitation:

0.10 grain H<sub>2</sub>S per dry standard cubic foot of fuel gas burned as a volume-weighted, rolling, 3-hour average or 20 parts per million SO<sub>2</sub> in the stack gas, as a volume weighted dry basis, adjusted to 0% excess air, rolling, 3-hour average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements of section A.III. If required, compliance shall also be demonstrated based upon the methods and procedures of 40 CFR 60.106(e)(1) or 40 CFR 60.106(f)(1).

c. Emission Limitation:

4.60 pound per hour SO<sub>2</sub>

Applicable Compliance Method:

Allowable emissions are based on operation at maximum capacity with a maximum H<sub>2</sub>S concentration of 0.10 gr/dscf or 20 ppmv SO<sub>2</sub> dry basis, adjusted to 0% excess air. Therefore compliance with the 0.10 grain H<sub>2</sub>S per dry standard cubic foot of fuel gas burned as a volume-weighted, rolling, 3-hour average emission limitation or 20 ppmv SO<sub>2</sub> dry basis, adjusted to 0% excess air constitutes compliance with the hourly SO<sub>2</sub> emission limitation.

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## d. Emission Limitation:

20.46 tons per rolling, 12-month period of SO<sub>2</sub>

## Applicable Compliance Method:

Compliance shall be based on CEM data used to calculate the SO<sub>2</sub> emissions under section A.III.

## e. Emission Limitation:

18.94 pounds per hour CO

## Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.082 lb/mmBtu times the maximum firing rate (230 mmBtu/hr). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

## f. Emission Limitation:

82.96 tons per rolling, 12-month period CO

## Applicable Compliance Method:

Annual allowable emissions are based on operation at maximum capacity for 8760 hours per year. Compliance with the hourly CO limit constitutes compliance with the annual CO limit.

## g. Emission Limitation:

1.71 pound per hour PM<sub>10</sub> emissions

## Applicable Compliance Method:

Multiply the AP-42 section 1.4 particulate matter emission factor dated July 1998 of 7.6 lb/mmcft of fuel gas burned times the daily average fuel gas burned per hour times the fuel gas heating value correction factor. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1020 Btu/scf. If required, compliance shall be demonstrated based upon the procedures specified in Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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## h. Emission Limitation:

7.51 tons per rolling, 12-month period of PM<sub>10</sub> emissions

## Applicable Compliance Method:

Multiply the AP-42 emission factor of 7.6 lb/mmcf of fuel gas burned times the total fuel gas burned per month times the fuel gas heating value correction factor divided by 2000 pounds per ton. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1020 Btu/scf. Add this total to the total for the previous 11 calendar months to obtain the rolling 12-month total emissions. Annual allowable emissions are based on operation at maximum capacity for 8760 hours per year. Compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

## i. Emission Limitation:

14.95 pound per hour NO<sub>x</sub>

## Applicable Compliance Method:

Multiply the BP NO<sub>x</sub> emission factor of 0.065 lb/mmBtu by the daily average fuel gas burned per hour to determine the hourly NO<sub>x</sub> emissions. The NO<sub>x</sub> emission factor was developed through testing on this emissions unit using Method 7E of 40 CFR Part 60, Appendix A on August 17, 1999. If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

## j. Emission Limitation:

65.48 tons NO<sub>x</sub> per rolling, 12-month period

## Applicable Compliance Method:

Annual allowable emissions are based on operation at maximum capacity for 8760 hours per year. Compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

## k. Emission Limitation:

1.24 pound per hour VOC

## Applicable Compliance Method:

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Multiply the AP-42 section 1.4 VOC emission factor dated July 1998 of 5.5 lb/mmcft of fuel gas burned corrected for heating value by the hourly fuel gas burned. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1020 Btu/scf. If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

I. Emission Limitation:

5.43 tons per rolling, 12-month period VOC

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Applicable Compliance Method:

Multiply the AP-42 section 1.4 VOC emission factor dated July 1998 of 5.5 lb/mmcf of fuel gas burned corrected for heating value by the monthly amount of fuel gas burned divided by 2000 pounds per ton. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1020 Btu/scf. Add this total to the total for the previous 11 calendar months to obtain the rolling 12-month total emissions. Annual allowable emissions are based upon operation at maximum capacity for 8760 hours per year. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

**VI. Miscellaneous Requirements**

1. Excessive Audit Inaccuracy. If the RA, using the RATA, CGA, or RAA exceeds the criteria in section 5.2.3, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary corrective action to eliminate the problem. Following corrective action, the source permittee must audit the CEMS with a RATA, CGA, or RAA to determine if the CEMS is operating within the specifications. A RATA must always be used following an out-of-control period resulting from a RATA. The audit following corrective action does not require analysis of USEPA performance audit samples. If audit results show the CEMS to be out-of-control, the CEMS operator shall report both the audit showing the CEMS to be out-of-control and the results of the audit following corrective action showing the CEMS to be operating within specifications.

Emissions Unit ID: B032

**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (B032) - 230 mmBtu per hour heater fired with refinery fuel gas and/or natural gas (Coker 3 Furnace)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (F005) - Coke handling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	<p>6.31 tons per year particulate emissions as a rolling, 12-month summation</p> <p>reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.b through A.I.2.d)</p> <p>The permittee shall maintain a partial enclosure on the coke pit.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1) and 3745-17-08(B).</p> <p>See section A.I.2.e</p>
OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-08(B)	See sections A.I.2.a through A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

Coke pit, front-end loader

- 2.b The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring

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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:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
Coke pit, front-end loader	watering

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 inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08.
- 2.e** Permit to install 04-01471 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under rule 3745-31-05(A)(3): watering to maintain sufficient moisture to prevent visible emissions.

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

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

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
---------------------------------------	-------------------------------------

Emissions Unit ID: F005

Coke crushing

daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. 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 measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in section A.III.3.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.

4. The permittee shall maintain monthly records of the amount of coke handled. From this data, the permittee shall calculate and record the total particulate emissions for that month and the rolling, 12-month summation of the monthly emissions in accordance with the procedures specified in section V.

#### **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.
  - c. each month that the rolling, 12-month summation of total particulate emissions recorded under A.III.4 is in excess of the limit established under section A.I.1.
2. The deviation reports shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

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

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

- a. Emission Limitation:

20% opacity as a 3-minute average for fugitive emissions

Applicable Compliance Method:

If required, 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, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- b. Emission Limitation:

6.31 tons per year particulate emissions as a rolling, 12-month summation

Applicable Compliance Method:

AP-42 calculation using sections 13.2.4 and 13.2.5 dated November, 2006 and the monitoring and record keeping requirements of section A.III.4. Add the monthly total emissions to the total emissions for the previous 11 months to determine the rolling, 12-month summation of particulate emissions.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment -(F005) - Coke handling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (F006) - Coke crusher 2**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	2.52 tons per year particulate emissions as a rolling, 12-month summation  The permittee shall maintain a partial enclosure on this emissions unit.  See section A.I.2.e and A.I.2.f.
OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-08(B)	See sections A.I.2.b through A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

Coke crushing

- 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:

material handling operation(s)

control measure(s)

Coke crushing  
in coke

Maintaining sufficient moisture content

Nothing in this paragraph shall prohibit the permittee from employing other

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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 inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d** Implementation of the above-mentioned control measure(s) 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.e** The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1) and OAC rule 3745-17-08(B).
- 2.f** Permit to install 04-01471 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under rule 3745-31-05(A)(3): watering to maintain sufficient moisture to prevent visible emissions.

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

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

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
Coke crushing	daily

- 2. The above-mentioned inspections shall be performed during representative, normal operating conditions.

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3. 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 measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in section A.III.3.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.

4. The permittee shall maintain monthly records of the amount of coke crushed. From this data, the permittee shall calculate and record the total particulate emissions for that month and the rolling, 12-month summation of the monthly emissions in accordance with the procedures specified in section V.

#### **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.
  - c. each month that the rolling, 12-month summation of particulate emissions recorded under A.III.4 is in excess of the limits established under section A.I.1.
2. The deviation reports shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

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

1. Compliance with the emissions limitation(s) in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
20% opacity as a 3-minute average for fugitive emissions

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Applicable Compliance Method:

If required, 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, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

b. Emission Limitation:

2.52 tons per year particulate emissions as a rolling, 12-month summation

Applicable Compliance Method:

Emission calculation using the emission factor of 0.02 pound particulate emissions per ton of coke crushed from the Ohio EPA document *Reasonably Available Control Measures for Fugitive Dust Sources* Table 2.19-2 dated August, 1983 and the monitoring and record keeping requirements of A.III.4. Add the monthly total emissions to the total emissions for the previous 11 months to determine the rolling, 12-month summation of particulate emissions.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (F006) - Coke crusher 2**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P007) - Fluidized Catalytic Cracking Unit (FCCU) consisting of an FCC Reactor, Catalyst Regenerator, Fractionator, Strippers and Absorbers with an average processing capacity of 55,000 barrels per day of fresh feed; and a carbon monoxide (CO) Boiler with a maximum input capacity of 669 million Btu per hour; SNCR control system**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-31-02(A)(2) (PTI 04-01330 issued 8/28/2003)	See sections A.I.2.c through A.I.2.f., A.I.2.k.
OAC rule 3745-31-05(A)(3) (PTI 04-01330 issued 8/28/2003)	See section A.I.2.l.
OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, unless otherwise specified by the rule.
OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions per million Btu of actual heat input from fuel burned in the CO boiler  See section A.I.2.h.
OAC rule 3745-17-11(A)	91.7 pounds per hour particulate emissions  See section A.I.2.b. and A.I.2.j.
OAC rule 3745-18-54(W)(6)	See sections A.I.2.b. and A.I.2.i.
OAC rule 3745-18-54(W)(1)	See section A.I.2.i.
OAC rule 3745-31-05(C) (PTI 04-01346)	See section A.I.2.m.
40 CFR Part 63, Subpart DDDDD	See section A.I.2.n.
OAC rule 3745-21-09(T)	See section A.I.2.a.
40 CFR Part 60, Subpart GGG	See section A.I.2.a.
40 CFR Part 63, Subpart CC	See section A.I.2.a.

40 CFR Part 63 , Subpart UUU	See section A.I.2.g.
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## 2. Additional Terms and Conditions

- 2.a** The permittee shall comply with all applicable equipment leak terms and conditions for: 40 CFR Part 63, Subpart CC which references 40 CFR Part 60, Subpart VV; and, OAC rule 3745-21-09(T). Equipment leaks that are subject to the provisions of both 40 CFR Part 60, Subpart GGG and 40 CFR Part 63, Subpart CC are required to comply only with the provisions specified in 40 CFR Part 63, Subpart CC.
- 2.b** This emission limit applies to emissions from the FCCU.
- 2.c** The permittee shall limit CO emissions from the FCCU to 500 parts per million by volume dry basis (ppmvd) as a 1-hour average. The CO limit shall not apply during periods of startup, shutdown or malfunction of the FCCU or the CO control equipment, if any, provided that during startup, shutdown or malfunction BP shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the USEPA and the Toledo Division of Environmental Services which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the emissions unit.
- 2.d** The permittee shall reduce total particulate emissions at the FCCU to 1 pound per 1,000 pounds of coke burned. The permittee shall achieve these reductions through installation of an electrostatic precipitator. The permittee shall meet this limit by no later than 6 months after the planned 2007 shutdown.
- 2.e** The permittee shall not burn in the CO Boiler any refinery fuel gas that has a volume-weighted, rolling, 3-hour average hydrogen sulfide (H<sub>2</sub>S) concentration greater than 0.10 grain per dry standard cubic foot, except during periods of startup, shutdown or malfunction of the refinery fuel gas amine systems provided that BP shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.
- 2.f** The CO Boiler (not the FCCU) shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR Part 60, Subparts A and J as those subparts apply to fuel gas combustion devices. These requirements apply to the CO Boiler at all times when burning refinery fuel gas.

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- 2.g** The permittee shall comply with the requirements for existing sources in 40 CFR Part 63, Subpart UUU by no later than January 1, 2006 according to the extension of compliance under 40 CFR 63.1563(c).
- 2.h** This emission limitation applies to the CO Boiler.
- 2.i** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2).
- 2.j** The emission limitation specified by this rule will be less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2) 6 months after the planned shutdown of this emissions unit in 2007 (See Section A.I.2.d).
- 2.k** SO<sub>2</sub> emissions from the FCCU shall not exceed 260 ppmvd at 0% oxygen as a rolling 7-day average or 160 ppmvd at 0% oxygen as a 365-day rolling average.
- 2.l** Ammonia emissions shall not exceed 20 parts per million by volume dry basis or 41.61 tons per year.  
  
The results of the permittee's ammonia slip analysis shall be submitted to the Toledo Division of Environmental Services . Based on the ammonia slip analysis, the permittee shall minimize ammonia slip while maintaining SNCR effectiveness in a manner consistent with good engineering practices. These emission limitations are the potential to emit based on vendor's design data, therefore, monitoring, recordkeeping and reporting are not required.
- 2.m** The permittee shall limit emissions of sulfur dioxide from the FCCU to 1,020 tons per rolling 12-month period to obtain a net decrease of 80 tons/yr SO<sub>2</sub>.
- 2.n** The permittee shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD no later than 3 years after publication of the final rule in the Federal Register.

**II. Operational Restrictions**

- 1. The permittee shall only burn FCCU regenerator offgas, natural gas, and/or refinery fuel gas in the CO Boiler.

**III. Monitoring and/or Recordkeeping Requirements**

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### 1. Continuous Opacity Monitoring Requirements

- a. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 51, Appendix P.
- b. The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (1-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- c. Continuous Opacity Monitoring - Certified Systems Statement of Certification

A statement of certification of the existing continuous Opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Toledo Division of Environmental Services upon request.

### 2. Continuous SO<sub>2</sub> Emissions Monitoring Requirements

The permittee shall operate and maintain existing equipment to continuously monitor and record SO<sub>2</sub> emissions from the FCCU in units of the applicable standards (ppmvd at 0% oxygen as a rolling 7-day average and ppmvd at 0% oxygen as a 365-day rolling average). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

### 3. Continuous H<sub>2</sub>S Monitoring and Record Keeping Requirements

- a. The permittee shall calibrate, maintain and operate a continuous monitoring system for measurement of the H<sub>2</sub>S content in the fuel gas before being burned in the CO Boiler. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
  - i. The H<sub>2</sub>S monitoring device shall continuously monitor and record the concentration (dry basis) of H<sub>2</sub>S in fuel gases before being burned in any fuel gas combustion device.
  - ii. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - iii. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately

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represents the concentration of H<sub>2</sub>S in the fuel gas being burned.

- iv. The performance evaluations for this H<sub>2</sub>S monitor shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.
4. Common Monitoring and Record Keeping Requirements for SO<sub>2</sub> and H<sub>2</sub>S continuous emissions monitoring systems

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- a. The permittee shall automatically check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts of the H<sub>2</sub>S and SO<sub>2</sub> monitors at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in Appendix B of 40 CFR Part 60. The system shall allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.
- b. Monitors that automatically adjust the data to the corrected calibration values (e.g., microprocessor control) shall be programmed to record the unadjusted concentration measured in the calibration drift (CD) prior to resetting the calibration, if performed, or record the amount of adjustment.
- c. If either the zero (or low-level) or high-level CD result exceeds twice the applicable drift specification in Appendix B for five, consecutive, daily periods, the CEMS is out-of-control. If either the zero (or low-level) or high-level CD result exceeds four times the applicable drift specification in 40 CFR Part 60, Appendix B during any CD check, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary corrective action. Following corrective action, repeat the CD checks.
- d. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required in 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: the continuous monitoring system for measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15- minute period.
- e. One-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit.
- f. The permittee shall implement a quality control program for the H<sub>2</sub>S and SO<sub>2</sub> continuous emissions monitoring systems. As a minimum, each quality control program shall include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:

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- i. calibration of CEMS;
- ii. CD determination and adjustment of CEMS;
- iii. preventive maintenance of CEMS (including spare parts inventory);
- iv. data recording, calculations, and reporting;
- v. accuracy audit procedures including sampling and analysis methods; and
- vi. program of corrective action for malfunctioning CEMS.

As described in Section 5.2 of 40 CFR Part 60, Appendix F Procedure 1, whenever excessive inaccuracies occur for two consecutive quarters, the permittee shall revise the current written procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.

- g. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

5. FCC/CO Boiler Monitoring and Record Keeping Requirements

- a. For each day during which the permittee burns a fuel other than FCCU regenerator offgas, refinery fuel gas, or natural gas in the CO Boiler, the permittee shall maintain a record of the type and quantity of fuel burned.
- b. The permittee shall measure and record hourly average CO concentrations from the FCCU. Process analyzers calibrated in accordance with manufacturer's recommendations may be used for this purpose.
- c. The permittee shall maintain a record of the operating time of the FCCU, the CO Boiler, and a record of all periods when the emissions from the FCCU bypass the CO Boiler.

6. Except as otherwise specified in this section, all records required under Section A.III of this permit shall be maintained in accordance with the Monitoring and Related Record Keeping Requirements of Part I - General Terms and Conditions.

7. The permittee shall maintain records of the monthly SO<sub>2</sub> emissions for P007 in units of

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tons SO<sub>2</sub> per month and tons SO<sub>2</sub> per rolling 12-month period. For each month, the permittee shall add the monthly total SO<sub>2</sub> emissions to the total SO<sub>2</sub> emissions for the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions.

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

##### **1. Continuous Opacity Monitoring Requirements**

Pursuant to 40 CFR Part 51, Appendix P, Paragraph 4.0, the permittee shall submit reports on a quarterly basis to the Toledo Division of Environmental Services documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-

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07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Toledo Division of Environmental Services documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

2. Reporting Requirements for SO<sub>2</sub> Continuous Emissions Monitoring System

a. The permittee shall submit a SO<sub>2</sub> excess emissions and monitoring systems performance report and/or a summary report form (see paragraph (d) of 40 CFR 60.7) to the Toledo Division of Environmental Services quarterly, or except when the Administrator of USEPA of USEPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit. All reports shall be postmarked by the 30th day following the end of each three-month period. Excess emissions are: each 7-day period in which emissions of SO<sub>2</sub> exceed 260 ppmvd at 0% oxygen as a rolling 7-day average; each 365-day period in which emissions of SO<sub>2</sub> exceed 160 ppmvd at 0% oxygen as a rolling 365-day average; and/or, each 12-month period in which SO<sub>2</sub> emissions exceed 1,070 tons per rolling 12-month period. Written reports of excess emissions shall include the following information:

i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of

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commencement and completion of each time period of excess emissions.  
The process operating time during the reporting period.

- ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

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- iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  - iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- b. The SO<sub>2</sub> excess emissions summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7 unless otherwise specified by the Administrator of USEPA. The data assessment report described under 40 CFR Part 60 Appendix F, Procedure 1 shall also be submitted with the summary report form.
- i. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator of USEPA.
  - ii. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
3. Reporting Requirements for H<sub>2</sub>S Continuous Emissions Monitoring System
- a. The permittee shall submit an H<sub>2</sub>S excess emissions and monitoring systems performance report and/or a summary report form to the Toledo Division of Environmental Services quarterly, or except when the Administrator of USEPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit. All reports shall be postmarked by the 30th day following the end of each three-month period. Excess emissions are each rolling 3-hour average H<sub>2</sub>S concentration greater than 0.10 grain per dry standard cubic foot of fuel gas burned. Written reports of excess emissions shall include the following information:
    - i. the magnitude of excess emissions computed in accordance with 40 CFR

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- 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period;
- ii. specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
  - iii. the date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
  - iv. when no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- b. The H<sub>2</sub>S excess emissions summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7 unless otherwise specified by the Administrator of USEPA. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- i. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator of USEPA.
  - ii. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
4. Common Reporting Requirements for Continuous H<sub>2</sub>S and SO<sub>2</sub> Continuous Emissions Monitoring Systems
- a. The permittee shall submit a quarterly report for each CEMS, the accuracy results from Section 6 and the CD assessment results from Section 4 of 40 CFR

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Part 60 Appendix F Procedure 1. Report the drift and accuracy information as a Data Assessment Report (DAR), and include one copy of this DAR for each quarterly audit with the report of emissions. As a minimum, the DAR shall contain the following information:

- i. permittee name and address;
- ii. identification and location of monitors in the CEMS;
- iii. manufacturer and model number of each monitor in the CEMS;
- iv. assessment of CEMS data accuracy and date of assessment as determined by a Relative Accuracy Test Audit (RATA), Relative Accuracy Audit (RAA), or Cylinder Gas Audit (CGA) described in Section 5 of 40 CFR Part 60 Appendix F Procedure 1 including the relative accuracy for the RATA, the Accuracy (A) for the RAA or CGA, the Reference Method (RM) results, the cylinder gases certified values, the CEMS responses, and the calculations results as defined in Section 6. If the accuracy audit results show the CEMS to be out-of-control, the CEMS operator shall report both the audit results showing the CEMS to be out-of-control and the results of the audit following corrective action showing the CEMS to be operating within specifications;
- v. results from EPA performance audit samples described in Section 5 and the applicable RM's; and
- vi. summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5 or 40 CFR Part 60 Appendix F Procedure 1.

An example of a DAR format is shown in Figure 1 of 40 CFR Part 60 Appendix F, Procedure 1.

5. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than FCCU regenerator offgas, refinery fuel gas, or natural gas was burned in the CO Boiler. Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.
6. Reporting Requirements for Carbon Monoxide Emissions Monitoring System

The permittee shall submit semiannual deviation (excursion) reports that identify each period when the CO emissions from the FCCU exceeded 500 ppmvd as a one-hour average. Written deviation reports shall include the following information:

- a. the total operating time of the emissions unit during the reporting period;

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- b. information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken;
- c. information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks); and
- d. if there are no deviations from the emission limitation and there was no monitor downtime, a statement that there were no deviations from the emission limitation and that the CO monitoring system was not inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted.

These reports shall be submitted to the Toledo Division of Environmental Services by January 30 and July 30 of each year and shall cover the previous six calendar months.

- 7. The permittee shall submit quarterly deviation/excursion reports that identify each period in which the SO<sub>2</sub> emissions from P007 exceeded 1,020 tons per rolling 12-month period.

These reports shall be submitted to the Toledo Division of Environmental Services by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter.

**V. Testing Requirements**

- 1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
20 percent opacity as a six-minute average  
  
Applicable Compliance Method:  
  
If required, Method 9 of 40 CFR Part 60 Appendix A shall be used to demonstrate compliance.
  - b. Emission Limitation:

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0.020 pound particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

If required, the procedure specified under OAC rule 3745-17-03(B)(9) shall be used to demonstrate compliance.

## c. Emission Limitation:

0.10 grain H<sub>2</sub>S per dry standard cubic foot of fuel gas burned as a volume-weighted, rolling 3-hour average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures of 40 CFR 60.106(e)(1).

## d. Emission Limitation:

Particulate emissions shall not exceed 1 pound per 1,000 pounds of coke burned

Applicable Compliance Method:

If required, the procedures specified under 40 CFR 63.1571 and under the conditions specified in Table 4 of 40 CFR Part 63, Subpart UUU shall be used to demonstrate compliance.

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e. Emission Limitation:

500 ppmvd CO as a one-hour average

Applicable Compliance Method:

If required, Method 10 of 40 CFR Part 60, Appendix A shall be used to demonstrate compliance. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

f. Emission Limitation:

SO<sub>2</sub> emissions from the FCCU shall not exceed 260 ppmvd at 0% oxygen as a rolling 7-day average

Applicable Compliance Method:

Compliance shall be determined using data from the SO<sub>2</sub> continuous emissions monitoring system.

Startup, Shutdown, or Malfunction:

Emissions during periods of Startup, Shutdown, or Malfunction shall not be considered in determining compliance with the 7-day rolling average emissions limits, provided that during such periods BP implements good air pollution control practices for minimizing SO<sub>2</sub> emissions.

g. Emission Limitation:

SO<sub>2</sub> emissions from the FCCU shall not exceed 160 ppmvd at 0% oxygen as a rolling 365-day average.

Applicable Compliance Method:

Compliance shall be determined using data from the SO<sub>2</sub> continuous emissions monitoring system

h. Emission Limitation:

20 ppmvd ammonia

Applicable Compliance Method:

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If required, the permittee shall demonstrate compliance using U.S. EPA Conditional Test Method (CTM) 027. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

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i. Emission Limitation:

41.61 tons per year ammonia

Applicable Compliance Method:

The annual emission limitation is based on the allowable concentration of 20 ppmvd at the maximum flow rate for 8,760 hours per year, therefore, compliance with the 20 ppmvd emission limitation constitutes compliance with the annual emission limitation.

j. Emission Limitation:

1,020 tons SO<sub>2</sub> per rolling 12-month period from the FCCU

Applicable Compliance Method:

Compliance shall be determined using data from the SO<sub>2</sub> continuous emissions monitoring system

2. Each CEMS shall be audited at least once each calendar quarter. Successive quarterly audits shall occur no closer than 2 months. The audits shall be conducted as follows:

a. Relative Accuracy Test Audit (RATA). The RATA shall be conducted at least once every four calendar quarters. Conduct the RATA as described for the RA test procedure in the applicable PS in Appendix B of 40 CFR Part 60 (e.g., PS 2 for SO<sub>2</sub> and NO<sub>x</sub>). In addition, analyze the appropriate performance audit samples received from USEPA as described in the applicable sampling methods (e.g., Methods 6 and 7).

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

ii. Personnel from the Toledo Division of Environmental Services shall be

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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.

- b. Cylinder Gas Audit (CGA). If applicable, a CGA may be conducted in three of four calendar quarters, but in no more than three quarters in succession.
- c. Relative Accuracy Audit (RAA). The RAA may be conducted three of four calendar quarters, but in no more than three quarters in succession. To conduct a RAA, follow the procedure described in the applicable PS in Appendix B of 40 CFR Part 60 for the relative accuracy test, except that only three sets of measurement data are required. Analyses of USEPA performance audit samples are also required.

## VI. Miscellaneous Requirements

- 1. Excessive Audit Inaccuracy. If the RA, using the RATA, CGA, or RAA exceeds the criteria in section 5.2.3 of 40 CFR Part 60 Appendix F Procedure 1, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary corrective action to eliminate the problem. Following corrective action, the permittee shall audit the CEMS with a RATA, CGA, or RAA to determine if the CEMS is operating within the specifications. A RATA shall always be used following an out-of-control period resulting from a RATA. The audit following corrective action does not require analysis of EPA performance audit samples. If audit results show the CEMS to be out-of-control, the CEMS operator shall report both the audit showing the CEMS to be out-of-control and the results of the audit following corrective action showing the CEMS to be operating within specifications.
- 2. The requirements contained in this PTI for this emissions unit supercede all requirements for this emissions unit contained in 04-01330.

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P007) - Fluidized Catalytic Cracking Unit (FCCU) consisting of an FCC Reactor, Catalyst Regenerator, Fractionator, Strippers and Absorbers with an average processing capacity of 55,000 barrels per day of fresh feed**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	Limit(s)

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit P007 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ammonia

TLV (mg/m<sup>3</sup>): 17

Maximum Hourly Emission Rate (lbs/hr): 9.5

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 4.5

MAGLC (ug/m3): 400

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

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- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**IV. Reporting Requirements**

None

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**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P036) - Coker 3/ delayed petroleum coker**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-09(T)	See section A.I.2.a.
OAC rule 3745-31-05(A)(3)	<p>7.38 pounds per hour of volatile organic compounds (VOC) as a rolling, 30-day average</p> <p>13.85 tons of VOC emissions per rolling, 12-month period (from coke cutting)</p> <p>10.81 tons of VOC from fugitive emissions (equipment leaks) per rolling, 12-month period</p> <p>See section A.I.2.b and A.I.2.i.</p>
40 CFR Part 60, Subpart GGG	See section A.I.2.c.
40 CFR Part 63, Subpart A	See sections A.I.2.d and A.I.2.e.
40 CFR Part 63, Subpart CC	See sections A.I.2.e and A.I.2.f.
miscellaneous process vents 40 CFR Part 63, Subpart CC	See section A.I.2.g.
40 CFR Part 60, Subpart QQQ	See section A.I.2.h.

**2. Additional Terms and Conditions**

- 2.a The permittee shall comply with all the applicable requirements of OAC rule 3745-21-09(T).
- 2.b The requirements of this rule also include compliance with the requirements of

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OAC rule 3745-21-09(T) and 40 CFR Part 60, Subpart GGG.

- 2.c** Equipment leaks that are subject to the provisions of both 40 CFR Part 60, Subpart GGG and 40 CFR Part 63, Subpart CC are required to comply only with the provisions specified in 40 CFR Part 63, Subpart CC.
- 2.d** 40 CFR Part 63, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 63.
- 2.e** Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to permittees of emissions units subject to Subpart CC of 40 CFR Part 63.
- 2.f** The permittee shall comply with all applicable equipment leak terms and conditions for 40 CFR Part 63, Subpart CC which references 40 CFR Part 60, Subpart VV.
- 2.g** The permittee shall comply with all the applicable requirements for the miscellaneous process vent provisions of 40 CFR Part 63, Subpart CC.
- 2.h** The permittee shall meet the individual drain system monitoring and record keeping requirements as outlined in the Title V permit terms and conditions for Emissions Unit P025 (Refinery Wastewater System).
- 2.i** Blowdown emissions shall be vented to the flare gas recovery system and vented to the refinery fuel gas system.

**II. Operational Restrictions**

- 1. Blowdown emissions shall be vented to the flare gas recovery system.

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall maintain daily records of the hours of operation and the number of coking cycles completed each day. From this data, the permittee shall calculate and record the following emissions from coke cutting: total daily VOC emissions, hourly VOC emissions as a rolling, 30-day average, the monthly VOC emissions, and the rolling, 12-month summation of VOC emissions.

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2. Emissions occurring during any malfunction, bypassing control equipment, startup or shutdown period must be quantified and recorded.
3. The permittee shall maintain records of all periods when the blowdown emissions from this emissions unit were not vented to the flare gas recovery system.
4. The permittee shall maintain monthly records of the number, type, and period of time components are determined to be leaking by the monitoring required under applicable rules. From this information, the permittee shall calculate and record the rolling, 12-month summation of monthly VOC emissions from equipment leaks.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports of the following deviations:
  - a. all periods when emissions exceeded 7.38 pounds per hour of VOC emissions as a rolling, 30-day average (from coke cutting);
  - b. all periods when emissions exceeded 13.85 tons of VOC per rolling, 12-month period (from coke cutting);
  - c. all periods when emissions exceeded 10.81 tons per year of VOC as a rolling, 12-month summation (from equipment leaks); and
  - d. all periods when blowdown emissions from this emissions unit were not vented to the flare gas recovery system.

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

These reports shall be submitted quarterly, i.e., by January 30, April 30, July 30, and October 30 of each year, and shall cover the previous calendar quarters.

#### V. Testing Requirements

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

1.a Emission Limitation:

7.38 pounds per hour of VOC emissions as a rolling, 30-day average from coke cutting

Applicable Compliance Method:

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If required, compliance shall be determined by multiplying the emission factor of 44.28 pounds VOC per blowdown cycle by the number of blowdown cycles per 30-day period, and dividing by the hours of operation for that 30-day period.

The VOC emission factor was supplied by the permittee in the PTI application for PTI 04-01471. If required, the permittee shall verify the coke cutting emission factor using Methods 1 through 4, 25, and 204 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.b Emission Limitation:

13.85 tons per year of VOC per rolling, 12-month period from coke cutting

Applicable Compliance Method:

If required, compliance shall be determined by multiplying the VOC emission factor of 44.28 pounds VOC per blowdown cycle by the number of blowdown cycles per month to obtain the monthly total VOC emissions, add this value to the total for the previous 11 months to obtain the 12-month total VOC emissions (in pounds), and divide by 2000 lbs/ton.

The VOC emission factor was supplied by the company in the PTI application for PTI 04 - 01471.

1.c Emission Limitation:

10.81 tons per year of VOC as a rolling, 12-month summation from fugitive leaks

Applicable Compliance Method:

If required, compliance shall be determined by multiplying the number of components determined to be leaking under applicable rules by the corresponding leak screening value correlation, multiplied by 2.2 lbs/kg, multiplied by the number of hours leaking per month, and divided by 2000 lbs/ton to obtain the VOC emission rate in tons per month for each type of leaking component. The leak screening values are listed in tables 2-10 and 2-14 of *Protocol for Equipment Leak Emission Estimates* (EPA document 453/R-95-017 or subsequent updates). Sum the monthly total emissions from all types of leaking components and add this value to the total for the previous 11 months to determine the 12-month total VOC emissions, in tons.

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2. If the Ohio EPA or the permittee believes that the emission factor specified above may not be representative of the actual emissions from this emissions unit, then the permittee shall conduct testing of the emissions unit to determine what the actual emission factor is, and submit the results of that testing to the Ohio EPA. Upon approval by the Director, the new emission factor shall be used for purposes of demonstrating compliance with the specified emission limits.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

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

1. The specific operations(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 specified in narrative form following the table.

**Operations, Property, and/or Equipment - (P036) - Coker 3/ delayed petroleum coker**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None