



Environmental Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

5/18/2011

Certified Mail

Bill Rupert  
BP-Husky Refining LLC  
4001 Cedar Point Road  
P.O. Box 696  
Oregon, OH 43697

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0448020007  
Permit Number: P0105902  
Permit Type: Administrative Modification  
County: Lucas

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

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

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

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

Sincerely,

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

Cc: U.S. EPA  
TDES; Michigan; Indiana; Canada





## Response to Comments

Response to comments for: Permit-To-Install

Facility ID:	0448020007
Facility Name:	BP-Husky Refining LLC
Facility Description:	Toledo Refinery
Facility Address:	4001 Cedar Point Road P.O. Box 696 Oregon, OH 43697 Lucas County
Permit #:	P0105902, Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 06/16/2010. The comment period ended on 07/16/2010.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

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

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

1. Topic: **None**
  - a. Comment: **None**
  - b. Response: **None**
2. Topic: **None**
  - a. Comment: **None**
  - b. Response: **None**





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
BP-Husky Refining LLC**

Facility ID:	0448020007
Permit Number:	P0105902
Permit Type:	Administrative Modification
Issued:	5/18/2011
Effective:	5/18/2011





Division of Air Pollution Control
Permit-to-Install
for
BP-Husky Refining LLC

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## Authorization

Facility ID: 0448020007  
Facility Description: Toledo Refinery  
Application Number(s): A0038943, A0038971  
Permit Number: P0105902  
Permit Description: Administrative modification to PTI 04-01482 in order to incorporate new NOx emissions limits for FCCU pursuant to Paragraph 14 of the Consent Decree entered in United States and State of Indiana, et al. v. BP Exploration & Oil Co., et al., Civil No. 2:96 CV 095 RL (ND Ind.).  
Permit Type: Administrative Modification  
Permit Fee: \$450.00  
Issue Date: 5/18/2011  
Effective Date: 5/18/2011

This document constitutes issuance to:

BP-Husky Refining LLC  
4001 Cedar Point Road  
P.O. Box 696  
Oregon, OH 43697

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

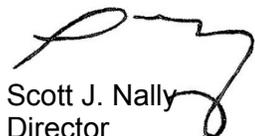
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Scott J. Nally  
Director



## **Authorization (continued)**

Permit Number: P0105902

Permit Description: Administrative modification to PTI 04-01482 in order to incorporate new NOx emissions limits for FCCU pursuant to Paragraph 14 of the Consent Decree entered in United States and State of Indiana, et al. v. BP Exploration & Oil Co., et al., Civil No. 2:96 CV 095 RL (ND Ind.).

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

**Emissions Unit ID:**

**P007**

Company Equipment ID:

FCC & CO Boiler

Superseded Permit Number:

04-01482

General Permit Category and Type:

Not Applicable

## **A. Standard Terms and Conditions**

**1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. General Requirements**

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

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

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

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

- (2) 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 Toledo Department of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

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

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

## 6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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

## **8. Air Pollution Nuisance**

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

## **9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.
- 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 Toledo Department of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

## 10. Applicability

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently

removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

## 12. Permit-To-Operate Application

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

## 13. Construction Compliance Certification

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

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

## 14. Public Disclosure

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

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

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

**16. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

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

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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

## **B. Facility-Wide Terms and Conditions**

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.

## **C. Emissions Unit Terms and Conditions**



**1. P007, FCC & CO Boiler**

**Operations, Property and/or Equipment Description:**

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

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

(1) d)(9).

c) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	See b)(2)c. through b)(2)f., b)(2)k., and b)(2)p. through t.
b.	OAC rule 3745-31-05(A)(3) (PTI 04-01330 issued August 28, 2003)	See b)(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 b)(2)h.
	OAC rule 3745-17-11(A)	91.7 pounds per hour particulate emissions  See b)(2)b. and b)(2)j.
	OAC rule 3745-18-54(W)(6)	See b)(2)b. and b)(2)i.
	OAC rule 3745-18-54(W)(1)	See b)(2)i.
	OAC rule 3745-31-05(C) (PTI 04-01346 modified January 18, 2007)	See b)(2)m.
	40 CFR Part 63, Subpart DDDDD	See b)(2)n.
	OAC rule 3745-21-09(T)	See b)(2)a.
	40 CFR Part 60, Subpart GGG	See b)(2)a. and b)(2)o.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR Part 63, Subpart CC	See b)(2)a.
	40 CFR Part 63 , Subpart UUU	See b)(2)g.

(2) Additional Terms and Conditions

- 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.
- b. This emission limit applies to emissions from the FCCU.
- 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.
- 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.
- 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.
- 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.

- 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).
- h. This emission limitation applies to the CO Boiler.
- 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).
- 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).
- 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.
- 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.

- 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> for this PTI.
- n. The permittee shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD by September 13, 2007. However, since this is an existing gas-fired unit, there are no applicable requirements except for an Initial Notification, which has already been made.
- o. The Wet Gas Compressor shall be considered an affected facility for the purposes of 40 CFR Part 60 Subpart GGG. The permittee shall comply with all the requirements of 40 CFR Part 60, Subpart GGG as this subpart applies to compressors.
- p. Final Long-Term NO<sub>x</sub> Limit: Beginning no later than December 1, 2009, BP-Husky shall comply with a long-term limit of 58.1 ppmvdNO<sub>x</sub> at 0% O<sub>2</sub> on a 365-day rolling average basis. This long-term limit shall apply at all times when the FCCU is operating, including during periods of startup, shutdown, and malfunction. The limit also shall apply during periods of scheduled maintenance of equipment other than the FCCU.

- q. Alternative Operating Scenario:
- i. For no more than 20 days over a rolling two year (730-day) period, when the CO boiler is operating and the FCCU is down, the long-term limit shall not apply if BP-Husky retires NO<sub>x</sub> allowance to account for NO<sub>x</sub> emissions (in tons or portion thereof) that occur on any such days. BP-Husky must retire said NO<sub>x</sub> allowances at a rate of not less than 1.5 to 1.
  - ii. A “NO<sub>x</sub> Allowance” means an authorization or credit to emit a specified amount of NO<sub>x</sub> that is allocated or issued under an emissions trading or marketable permit program that has been established under the Clean Air Act.
  - iii. For all NO<sub>x</sub> Allowances to be surrendered pursuant to Paragraph q.i., BP-Husky shall first submit a NO<sub>x</sub> Allowance transfer request form to U.S. EPA’s Office of Air and Radiation’s Clean Air Markets Division directing the transfer of such NO<sub>x</sub> Allowances to the U.S. EPA Enforcement Surrender Account. As part of submitting this transfer request, BP-Husky shall irrevocably authorize the transfer of these NO<sub>x</sub> Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the NO<sub>x</sub> Allowances being surrendered.
  - iv. Mitigation. To qualify for the alternate operating scenario, BP-Husky shall surrender all NO<sub>x</sub> allowances that are required pursuant to this Paragraph by no later than March 15<sup>th</sup> of the year following the calendar year in which the long-term emissions limit is exceeded.
- r. Final Short Term NO<sub>x</sub> Limit: Beginning no later than December 1, 2009, and except as provided in Paragraph s. below, BP-Husky shall comply with a short-term limit of 93.4 ppmvdNO<sub>x</sub> at 0% O<sub>2</sub> on a 7-day rolling average basis. This short-term limit shall apply at all times when the FCCU is operating except during periods of startup, shutdown, and malfunction.
- s. Emissions During Periods of FCCU Shutdown and CO Boiler Operation: The short-term (7-day) emission limit established in r. above shall not apply during periods when the CO boiler is operating but the FCCU is shut down. During such periods, BP-Husky shall minimize NO<sub>x</sub> emissions from the CO boiler to the extent practicable consistent with good air pollution control practices for minimizing emissions by continuing to treat the off gases in the selective non-catalytic reduction equipment installed pursuant to the Consent Decree. In addition, BP-Husky shall monitor NO<sub>x</sub> emissions from the CO boiler using a continuous emissions monitor (CEM). The CEM shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. § 60.11, § 60.13, and Part 60 Appendix F. This CEM shall be used to demonstrate compliance with emission limits.
- t. General Provisions for NO<sub>x</sub> Limit: Determination of compliance with the limits established in p. and r. above shall be based on data generated after the limits go into effect. December 1, 2009 is the first day used in the 365-day rolling

average subject to the 58.1 ppmvd emission limit with the first complete 365-day average being on November 30, 2010. December 1, 2009 is the first day used in the 7-day rolling average subject to the 93.4 ppmvd limit with the first complete 7-day average being on December 7, 2009.

- u. The final NO<sub>x</sub> limits for the Toledo FCCU established in this permit are effective beginning December 1, 2009.
- d) Operational Restrictions
- (1) The permittee shall only burn FCCU regenerator offgas, natural gas, and/or refinery fuel gas in the CO Boiler.
- e) Monitoring and/or Recordkeeping Requirements
- (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
    - a. 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 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
- 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:
  - 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) Continuous NO<sub>x</sub> Emissions Monitoring Requirements

- a. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system, designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

- b. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

- c. The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO<sub>x</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

[40 CFR 60.13] and [40 CFR Part 60, Appendix B]

- d. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to:

- i. emissions of NO<sub>x</sub> in parts per million on an instantaneous (one-minute) basis;

- ii. emissions of NO<sub>x</sub> in all units of the applicable standard(s) in the appropriate averaging period;
- iii. results of quarterly cylinder gas audits;
- iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- v. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- vi. hours of operation of the emissions unit, continuous NO<sub>x</sub> monitoring system, and control equipment;
- vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO<sub>x</sub> monitoring system;
- viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO<sub>x</sub> monitoring system; as well as,
- ix. the reason (if known) and the corrective actions taken (if any) for each such event in vii and viii.

[40 CFR 60.13] and [40 CFR Part 60, Appendices B & F]

(6) 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.

(7) 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.

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

- (9) 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

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 4.5

MAGLC (ug/m<sup>3</sup>): 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:"

- d. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- e. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- f. 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.

f) Reporting Requirements

(1) Continuous Opacity Monitoring Requirements

- a. 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 3745-17-07, 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).
- b. 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.
- c. 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, 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 1,020 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 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.
  - 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 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 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 comply with the following quarterly reporting requirements for the emissions unit and its continuous NO<sub>x</sub> monitoring system:
- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO<sub>x</sub> emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC

Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
- i. the facility name and address;
  - ii. the manufacturer and model number of the continuous NO<sub>x</sub> and other associated monitors;
  - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
  - iv. the excess emissions report (EER)\*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
  - v. the total NO<sub>x</sub> emissions for the calendar quarter (tons);
  - vi. the total operating time (hours) of the emissions unit;
  - vii. the total operating time of the continuous NO<sub>x</sub> monitoring system while the emissions unit was in operation;
  - viii. results and dates of quarterly cylinder gas audits;
  - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
  - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO<sub>x</sub> monitor out-of-control and the compliant results following any corrective actions;
  - xi. the date, time, and duration of any/each malfunction\*\* of the continuous NO<sub>x</sub> monitoring system, emissions unit, and/or control equipment;
  - xii. the date, time, and duration of any downtime\*\* of the continuous NO<sub>x</sub> monitoring system and/or control equipment while the emissions unit was in operation; and
  - xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

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

\* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

\*\* each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[40 CFR 60.7]

- (6) 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.
- (7) Reporting Requirements for Carbon Monoxide Emissions Monitoring System
- a. 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:
- i. the total operating time of the emissions unit during the reporting period;
  - ii. information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken;
  - iii. 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
  - iv. 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.
- b. 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.
- (8) 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.
- a. 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.

## g) 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:

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.

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:

i. 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:

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.

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

k. Emission Limitation

58.1 ppmvdNO<sub>x</sub> at 0% O<sub>2</sub> on a 365-day rolling average basis

Applicable Compliance Method:

Compliance shall be determined using data from the NO<sub>x</sub> continuous emissions monitoring system

l. Emission Limitation

93.4 ppmvdNO<sub>x</sub> at 0% O<sub>2</sub> on a 7-day rolling average basis

Applicable Compliance Method:

Compliance shall be determined using data from the NO<sub>x</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 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).
    - i. 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).
    - i. 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
- (3) Ongoing compliance with the NO<sub>x</sub> emission limitations contained in this permit shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.
- h) 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.