



State of Ohio Environmental Protection Agency

Street Address:

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

**RE: FINAL PERMIT TO INSTALL  
LUCAS COUNTY  
Application No: 04-01290**

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
Y	CEMS
CC	MACT
J	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE:** 7/25/2002

BP Products North America Inc  
Dennis Durnwald  
P. O. Box 696  
Toledo, OH 436970696

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Very truly yours,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control



Permit To Install  
Terms and Conditions

Issue Date: 7/25/2002  
Effective Date: 7/25/2002

**FINAL PERMIT TO INSTALL 04-01290**

Application Number: 04-01290

APS Premise Number: 0448020007

Permit Fee: **\$14100**

Name of Facility: BP Products North America Inc

Person to Contact: Dennis Durnwald

Address: P. O. Box 696  
Toledo, OH 436970696

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

**4001 Cedar Point Road  
Oregon, Ohio**

Description of proposed emissions unit(s):

**This PTI is to make the emission limits contained in a recent consent decree federally enforceable.**

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

Director

## Part I - GENERAL TERMS AND CONDITIONS

### 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 reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 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 to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. 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. 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.

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

## **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 this Permit To Install.

## **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 of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **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.
  - 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 To Install 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 thirty (30) 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.

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

### **1. Compliance Requirements**

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

### **2. Reporting Requirements Related to Monitoring and Recordkeeping 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **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. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of 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)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

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

**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**

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	8.07 (No Increase)
NO <sub>x</sub>	495 (No Increase)
PE	1.74 (No Increase)
SO <sub>2</sub>	172 (No Increase)
VOC	6.2 (No Increase)

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

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

None

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Heaters, boilers, flares	OAC rule 3745-31-02(A)(2)	See A.I.2.h and A.I.2.i below
general provisions	40 CFR 63, subpart A 40 CFR 63, subpart CC	See A.I.2.a and A.I.2.b below See A.I.2.f and A.I.2.g below
equipment leaks	40 CFR 63, subpart CC  OAC rule 3745-21-09(T)	See A.I.2.c through A.I.2.e below  See A.II.20 through A.II.26

**2. Additional Terms and Conditions**

- 2.a 40 CFR 63, subpart A provides applicability provisions, definitions, and other general provisions that are applicable to emissions units affected by 40 CFR 63.
- 2.b [63.642(c)]  
Table 6 of 40 CFR 63, subpart CC specifies the provisions of 40 CFR 63, subpart A that apply and those that do not apply to permittees of sources subject to 40 CFR 63, subpart CC.
- 2.c [63.648(a)] - Equipment Leaks  
In accordance with 40 CFR 63, subpart CC, the permittee shall comply with the applicable provisions of 40 CFR 60, subpart VV and paragraph (b) of 40 CFR 63.648 except as provided in paragraphs 2.c.i., 2.c.ii. of this section, and (c) through (i) of 40 CFR 63.648.
  - i. [63.648(a)(1)]  
For purposes of compliance with 40 CFR 63.648, the provisions of 40 CFR 60, subpart VV apply only to equipment in organic HAP service, as defined in 40 CFR 63.641, subpart CC.

- ii. [63.648(a)(2)]  
Calculation of percentage leaking equipment components for subpart VV of 40 CFR part 60 may be done on a process unit basis or a source-wide basis. Once the permittee has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

**2.d** [63.640(p)] - Equipment Leaks

Equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 are required to comply only with the provisions specified in 40 CFR part 63, Subpart CC.

**2.e** [63.640(q)] - Equipment Leaks

For overlap of 40 CFR 63, subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, record keeping, and reporting requirements under subpart CC with the monitoring, record keeping, and reporting requirements under other applicable requirements in 40 CFR 60, 61, or 63, and in any 40 CFR part 52 approved State implementation plan provided the implementation plan allows for approval of alternative monitoring, reporting, or record keeping requirements and provided that the permit contains an equivalent degree of compliance and control.

**2.f** [63.640(l)]

If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, or marine tank vessel loading operation that meets the criteria in 40 CFR 63.640(c)(1) through (c)(7) of subpart CC is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emission point(s) (as defined in 63.641 of subpart CC) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to 40 CFR 63.640(i) or (j) of subpart CC, the requirements in paragraphs i. through iii. of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph and 63.640(m) [see section A.I.2.], process changes do not include: process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by 40 CFR 63.654(f).

i. [63.640(l)(1)]

The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

ii. [63.640(1)(2)]

The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with 40 CFR 63, subpart CC, by the dates specified in paragraphs ii.(a) or ii.(b) of this section, as applicable.

- (a) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by 3 years after the date of promulgation of this subpart, whichever is later.
- (b) If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point (as defined in 40 CFR 63.641), the permittee shall be in compliance upon initial startup or by 3 years after the date of promulgation of this subpart, whichever is later, unless the permittee demonstrates to the Director (Director of Ohio EPA) and Administrator (Administrator of USEPA) that achieving compliance will take longer than making the change. If this demonstration is made to the Director's and Administrator's satisfaction, the permittee shall follow the procedures in 63.640(m)(1) through (m)(3) [see section A.I.1.] to establish a compliance date.

iii. [63.640(1)(3)]

The permittee of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, or marine tank vessel loading operation meeting the criteria in 40 CFR 63.640(c)(1) through (c)(7) of subpart CC, that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and record keeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (a) through (f) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed below. The applicable reports include, but are not limited to:

- (a) the Notification of Compliance Status report as required by 40 CFR 63.654(f) for the emission points that were added or changed;
- (b) Periodic Reports and other reports as required by 40 CFR 63.654(g) and (h);
- (c) reports and notifications required by sections of subpart A of 40 CFR 63 that are applicable to this subpart, as identified in table 6 of subpart CC.

- (d) reports and notifications required by 40 CFR 63.182 or 40 CFR 60.487. The requirements of subpart H of this part are summarized in table 3 of subpart CC;
- (e) reports required by 40 CFR 61.357 of subpart FF;
- (f) reports and notifications required by 40 CFR 63.428(b), (c), (g)(1) and (h)(1) through (h)(3) of subpart R. These requirements are summarized in table 4 of subpart CC; and

- iv. [63.640(1)(4)]  
If pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems are added to an existing source, they are subject to the equipment leak standards for existing sources in 40 CFR 63.648 [see section A.II.]. A notification of compliance status report shall not be required for such added equipment.

**2.g** [63.640(m)]

If a change that does not meet the criteria in 63.640(1) [see section A.I.2.f] is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in 40 CFR 63.641), the permittee shall comply with the requirements of subpart CC for existing sources for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

- i. The permittee shall submit to the Director and Administrator for approval a compliance schedule, along with a justification for the schedule.
- ii. The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the permitting authority. If it is not possible to determine until after the change is implemented whether the emission point has become Group 1, the compliance schedule shall be submitted within 180 days of the date when the affect of the change is known to the source. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.
- iii. The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

**2.h** This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).

- 2.i** By no later than September 30, 2003, all heaters and boilers at this facility shall be considered an affected facility for purposes of 40 CFR 60, Subpart J, and shall comply with all requirements of 40 CFR 60 Subparts A and J as those Subparts apply to fuel gas combustion devices.

## **II. Operational Restrictions - 40 CFR 63, subpart CC**

### [63.648] EQUIPMENT LEAK STANDARDS - 40 CFR 63, subpart CC

1. [63.648(b)]

The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR 60, subpart VV and 40 CFR 63.648(c) [see section A.II. in Part II] (i.e., quarterly or semiannually) is governed by the requirements of 40 CFR 63.648(b)(1) and (b)(2) [see below].

  - a. [63.648(b)(1)]

Monitoring data shall meet the test methods and procedures specified in 40 CFR 60.485(b) except for minor departures.
  - b. [63.648(b)(2)]

Departures from the criteria specified in 40 CFR 60.485(b) or from the monitoring frequency specified in 40 CFR 60, subpart VV or in 40 CFR 63.648(c) [see below] (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.
2. [63.648(c)]

In lieu of complying with the existing source provisions of 63.648(a) [see section A.I.2. in Part II], the permittee may elect to comply with the requirements of 40 CFR 63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179 and 63.180 of subpart H except as provided in 40 CFR 63.648(c)(1) through (c)(10) and 40 CFR 63.648(e) through (i) of subpart CC.
3. [63.648(f)]

Reciprocating pumps in light liquid service are exempt from 60.482 [see section A.II. in Part II] if recasting the distance piece or reciprocating pump replacement is required.
4. [63.648(g), (g)(1) and (g)(2)]

Compressors in hydrogen service are exempt from the requirements of 63.648(a) and (c) [see sections A.I.2. and A.II. in Part II] if a permittee demonstrates that a compressor is in hydrogen service.

  - a. Each compressor is presumed not to be in hydrogen service unless the permittee demonstrates that the piece of equipment is in hydrogen service.



- a. [60.482-2(a)]  
Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 60.485(b) [see section A.V. in Part II], except as provided in 60.482-1(c) [see section A.II. in Part II] and paragraphs d., e., and f. of this section. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
- b. [60.482-2(b)]  
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If there are indications of liquids dripping from the pump seal, a leak is detected.
- c. [60.482-2(c)]  
When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9 [see section A.II. in Part II]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- d. [60.482-2(d)]  
Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph a. of this section, provided the following requirements are met:
  - i. Each dual mechanical seal system is:
    - (a) operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
    - (b) equipped with a barrier fluid degassing reservoir that is connected by a closed vent system to a control device that complies with the requirements of 60.482-10 [see section A.II in Part II]; or
    - (c) equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
  - ii. The barrier fluid system is in heavy liquid service or is not in VOC service.
  - iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
  - iv. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

- v. Each sensor as described in paragraph d.iii of this section is checked daily or is equipped with an audible alarm, and the permittee determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
  - vi. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph d.v of this section, a leak is detected. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9 [see section A.II. in Part II]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- e. [60.482-2(e)]  
Any pump that is designated, as described in 60.486(e)(1) and (2) [see section A.III. in Part II], for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs a., c., and d. of this section if the pump:
- i. has no externally actuated shaft penetrating the pump housing;
  - ii. is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40.485(c) [see section A.V. in Part II]; and
  - iii. is tested for compliance with paragraph e.ii of this section initially upon designation, annually, and at other times requested by the Administrator.
- f. [60.482-2(f)]  
If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 60.482-10 [see section A.II. in Part II]], it is exempt from paragraphs a. through e. of this section.
8. [60.482-3] STANDARDS: COMPRESSORS - 40 CFR 60, subpart VV
- a. [60.482-3(a)]  
Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 60.482-1(c) [see section A.II. in Part II]] and paragraph h. and i. of this section.

- b. [60.482-3(b)(1)-(3)]  
Each compressor seal system as required in paragraph a. of this section shall be:
  - i. operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
  - ii. equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 60.482-10 [see section A.II. in Part II]; or
  - iii. equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
- c. [60.482-3(c)]  
The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.
- d. [60.482-3(d)]  
Each barrier fluid system as described in paragraph a. of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- e. [60.482-3(e)]  
Each sensor as required in paragraph d. of this section shall be checked daily or shall be equipped with an audible alarm. The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- f. [60.482-3(f)]  
If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph e., a leak is detected.
- g. [60.482-3(g)]  
When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9 [see section A.II. in Part II]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- h. [60.482-3(h)]  
A compressor is exempt from the requirements of paragraphs a. and b. of this section, if it is equipped with a closed vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of 60.482-10 [see section A.II. in Part II], except as provided in paragraph i. of this section.

- i. [60.482-3(i)]

Any compressor that is designated, as described in 60.486(e)(1) and (2) [see section A.III. in Part II], for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs a. through h. of this section if the compressor:

  - i. is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 60.485(c) [see section A.V. in Part II]; and
  - ii. is tested for compliance with section A.II.9.i.i, initially upon designation, annually, and at other times requested by the Administrator.
  
- j. [60.482-3(j)]

Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 60 CFR 60.14 or 60.15 is exempt from 60.482-3(a), (b), (c), (d), (e), and (h) [see section A.II. in Part II], provided the permittee demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs a. through e. and h. of this section.
  
- 9. [60.482-4] STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE - 40 CFR 60, subpart VV
  - a. [60.482-4(a)]

Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 60.485(c) [see section A.V. in Part II].
  
  - b. [60.482-4(b)]

After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 60.482-9 [see section A.II. in Part II]. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 60.485(c) [see section A.V. in Part II].
  
  - c. [60.482-4(c)]

Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control

device as described in 60.482-10 [see section A.II in Part II] is exempted from the requirements of paragraphs a. and b. of this section.

10. [60.482-5] STANDARDS: SAMPLING CONNECTION SYSTEMS - 40 CFR 60, subpart VV
    - a. [60.482-5(a)]

Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 60.482-1(c) [see section A.II. in Part II].
    - b. [60.482-5(b)]

Each closed-purge, closed-loop, or closed-vent system as required in paragraph a. of this section shall comply with the requirements specified in paragraphs b.i through b.iii of this section:
      - i. return the purged process fluid directly to the process line; or
      - ii. collect and recycle the purged process fluid to a process; or
      - iii. be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 60.482-10 [see section A.II. in Part II].
  - c. [60.482-5(c)]

In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs a. and b. of this section.
11. [60.482-6] STANDARDS: OPEN-ENDED VALVES OR LINES - 40 CFR 60, subpart VV
  - a. [60.482-6(a)(1) and (2)]

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 60.482-1(c) [see section A.II in Part II]. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
  - a. [60.482-6(b)]

Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

- c. [60.482-6(c)]  
When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall comply with paragraph a. of this section at all other times.

12. [60.482-7] STANDARDS: VALVES IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE - 40 CFR 60, subpart VV

- a. [60.482-7(a)]  
Each valve shall be monitored monthly to detect leaks by the methods specified in 60.485(b) [see section A.V. in Part II] and shall comply with paragraphs b. through e. of this section, except as provided in paragraphs f., g., and h. of this section, 60.483-1, 60.483-2, and 60.482-1(c) [see section A.II.].
- b. [60.482-7(b)]  
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- c. [60.482-7(c)(1) and (2)]  
Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
- d. [60.482-7(d)(1) and (2)]  
When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 60.482-9 [see section A.II.]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- e. [60.482-7(e)(1)-(4)]  
First attempts at repair include, but are not limited to, the following best practices where practicable:
  - i. tightening of bonnet bolts;
  - ii. replacement of bonnet bolts;
  - iii. tightening of packing gland nuts; and
  - iv. injection of lubricant into lubricated packing.
- f. [60.482-7(f)(1)-(3)]  
Any valve that is designated, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph a. of this section if the valve:
  - i. has no external actuating mechanism in contact with the process fluid;

- ii. is operated with emissions less than 500 ppm above background as determined by the method specified in 60.485(c) [see section A.V. in Part II]; and
    - iii. is tested for compliance with paragraph f.ii of this section initially upon designation, annually, and at other times requested by the Director and/or Administrator.
  - g. [60.482-7(g)(1) and (2)]  
Any valve that is designated, as described in 60.486(f)(1) [see section A.III. of Part II], as an unsafe-to-monitor valve is exempt from the requirements of paragraph a. of this section if:
    - i. the permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph a. of this section; and
    - ii. the permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
  - h. [60.482-7(h)(1)-(3)]  
Any valve that is designated, as described in 60.486(f)(2) [see section A.III. of Part II], as a difficult-to-monitor valve is exempt from the requirements of paragraph a. of this section if:
    - i. the permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;
    - ii. the process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or the permittee designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and
    - iii. the permittee follows a written plan that requires monitoring of the valve at least once per calendar year.
- 13 . [60.482-8] STANDARDS: PUMPS AND VALVES IN HEAVY LIQUID SERVICE, PRESSURE RELIEF DEVICES IN LIGHT LIQUID OR HEAVY LIQUID SERVICE, AND FLANGES AND OTHER CONNECTORS - 40 CFR 60, subpart VV

- a. [60.482-8(a)]  
Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in 60.485(b) [see section A.V. in Part II] if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
  - b. [60.482-8(b)]  
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - c. [60.482-8(c)]  
When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9 [see section A.II. of Part II]. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
  - a. [60.482-8(d)]  
First attempts at repair include, but are not limited to, the best practices described under 60.482-7(e) [see section A.II. of Part II].
14. [60.482-9] STANDARDS: DELAY OF REPAIR - 40 CFR 60, subpart VV
- a. [60.482-9(a)]  
Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
  - b. [60.482-9(b)]  
Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
  - c. [60.482-9(c)(1)-(2)]  
Delay of repair for valves will be allowed if:
    - i. the permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair; and
    - ii. when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 60.482-10 [see section A.II. of Part II].
  - d. [60.482-9(d)(1)-(2)]  
Delay of repair for pumps will be allowed if:



- i. [60.482-10(f)(1)]  
If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall comply with the following requirements: conduct an initial inspection according to the procedures in 60.485(b) [see section A.V. in Part II]; and conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- ii. [60.482-10(f)(2)]  
If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall conduct an initial inspection according to the procedures in 60.485(b) [see section A.V. in Part II] and conduct annual inspections according to the procedures in 60.485(b) [see section A.V. in Part II].
- g. [60.482-10(g)]  
Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph h. of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected.
- h. [60.482-10(h)]  
Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.
- i. [60.482-10(i)]  
If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs f.i and f.ii of this section.
- j. [60.482-10(j)(1)-(2)]  
Any parts of the closed vent system that are designated, as described in 60.482-10(l)(1) [see section A.III. of Part II], as unsafe to inspect are exempt from the inspection requirements of paragraphs f.i and f.ii of this section if they comply with the requirements specified in paragraphs j.i and j.ii of this section:
  - i. the permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs f.i or f.ii of this section; and
  - ii. the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

- k. [60.482-10(k)(1)-(3)]  
Any parts of the closed vent system that are designated, as described in 60.482-10(l)(2) [see section A.III. of Part II] of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs f.i and f.ii of this section if they comply with the requirements specified in paragraphs k.i through k.iii of this section:
- i. the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
  - ii. the process unit within which the closed vent system is located becomes an affected facility through 40 CFR 60.14 or 60.15, or the permittee designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
  - iii. the permittee has a written plan that requires inspection of the equipment at least once every 5 years.

A closed vent system is exempt from inspection if it is operated under a vacuum.

- l. [60.482-10(m)]  
Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

16. [60.483-1] ALTERNATIVE STANDARDS FOR VALVES - ALLOWABLE PERCENTAGE OF VALVES LEAKING - 40 CFR 60, subpart VV

- a. [40.483-1(a)]  
The permittee may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
- b. [40.483-1(b)]  
The following requirements shall be met if the permittee wishes to comply with an allowable percentage of valves leaking:
  - i. The permittee shall notify the Director and Administrator that the permittee has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in 60.487(b) [see section A.II. in Part II].
  - ii. A performance test as specified in paragraph c. of this section shall be conducted initially upon designation, annually, and at other times requested by the Director or Administrator.

iii. If a valve leak is detected, it shall be repaired in accordance with 60.482-7(d) and (e) [see section A.II. in Part II].

c. [40.483-1(c)]

Performance tests shall be conducted in the following manner:

i. All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 60.485(b) [see section A.V. in Part II].

ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

iii. The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

d. [40.483-1(d)]

Permittees who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

17. [60.483-2] ALTERNATIVE STANDARDS FOR VALVES - SKIP PERIOD LEAK DETECTION AND REPAIR - 40 CFR 60, subpart VV

a. [60.483-2(a)]

The permittee may elect to comply with one of the alternative work practices specified in paragraphs b.ii and b.iii of this section. The permittee shall notify the Director and Administrator before implementing one of the alternative work practices, as specified in 40 CFR 60.487(b).

b. [60.483-2(b)(1)-(6)]

i. The permittee shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in 60.482-7 [see section A.II. in Part II].

ii. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

iii. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

- iv. If the percent of valves leaking is greater than 2.0, the permittee shall comply with the requirements as described in 60.482-7 [see section A.II. in Part II], but can again elect to use this section.
  - v. The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.
  - vi. The permittee shall keep a record of the percent of valves found leaking during each leak detection period.
18. [60.484] EQUIVALENCE OF MEANS OF EMISSION LIMITATION - 40 CFR 60, subpart VV
- a. [60.484(a)]  
Each permittee subject to the provisions of this subpart may apply to the Director and Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.
  - b. [60.484(b)(1)-(3)]  
Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:
    - i. Each permittee applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.
    - ii. The Director and Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.
    - iii. The Director and Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

- c. [60.484(c)(1)-(6)]  
Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:
- i. Each permittee applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.
  - ii. For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.
  - iii. For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.
  - iv. Each permittee applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.
  - v. The Director and Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).
  - vi. The Director and Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.
- d. [60.484(d)]  
The permittee may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.
- e. [60.484(e)(1)-(3)]  
After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved. After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER. Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

- a. [60.484(f)(1)-(2)]  
Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart. The Administrator will make an equivalence determination according to the provisions of paragraphs b., c., d., and e. of this section.

[OAC rule 3745-21-09(T)(1)(a)]

- 19. Except as otherwise indicated in paragraph (T)(1)(b) of OAC rule 3745-21-09, a monitoring program shall be developed and implemented which incorporates the following provisions:
  - a. Yearly monitoring of all pump seals, pipeline valves in liquid service and process drains in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10;
  - b. Quarterly monitoring of all compressor seals, pipeline valves in gas service and pressure relief valves in gas service in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10;
  - c. Monthly monitoring of all pump seals by visual methods;
  - d. Monitoring of any pump seal in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10 within five working days after any liquids are observed dripping from the seal;
  - e. Monitoring of any relief valve in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10 within five working days after the valve has vented to the atmosphere; and
  - f. Monitoring of any component in accordance with the method specified in paragraph (F) of OAC rule 3745-21-10 within five working days after the repair of a leak.

[OAC rule 3745-21-09(T)(1)(b)]

- 20. Pressure relief devices which are connected to an operating flare header, vapor recovery devices, valves which are located in pipelines containing kerosene or heavier liquids, storage tank valves and valves which are not externally regulated are exempt from the monitoring requirements contained in paragraph (T)(1)(a) of OAC rule 3745-21-09.

[OAC rule 3745-21-09(T)(1)(c)]

21. For any pipeline or pressure relief valves in gas or liquid service, an alternative monitoring schedule may be employed in lieu of the monitoring schedule specified in paragraph (T)(1)(a) of OAC rule 3745-21-09 as follows:
- a. The valve is designated as difficult to monitor and is monitored each calendar year, provided the following conditions are met:
    - i. Construction of the process unit commenced prior to March 27, 1981;
    - ii. The permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than six feet above a support surface; and
    - iii. The permittee has a written plan that requires monitoring of the valve at least once per year.
  - b. The valve is designated as unsafe to monitor and is monitored as frequently as practical during safe to monitor times, provided the following conditions are met:
    - i. The permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring on a quarterly or yearly basis as specified in paragraph (T)(1)(a) of OAC rule 3745-21-09; and
    - ii. The permittee adheres to a written plan that requires monitoring of the valve as frequently as practical during process unit turnarounds and other safe to monitor times.

[OAC rule 3745-21-09(T)(1)(d)]

22. All pipeline valves in gas service and pressure relief valves in gas service shall be clearly marked and identified in such a manner that they will be obvious to both refinery personnel performing monitoring and to the Director;

[OAC rule 3745-21-09(T)(1)(e)]

23. If a leak is identified as a result of the monitoring program required by paragraph (T)(1)(a) of OAC rule 3745-21-09 and the concentration of VOC exceeds ten thousand parts per million by volume, a tag shall immediately be placed on the leaking component. The tag shall be readily visible and weatherproof; it shall bear an identification number; and it shall clearly indicate the date the leak was detected. The tag shall remain in place until the leaking component is repaired.

[OAC rule 3745-21-09(T)(2)]

24. Any permittee of a petroleum refinery shall repair and retest any leaking component, which is tagged and identified in accordance with paragraph (T)(1)(e) of OAC rule 3745-

21-09, as soon as possible but no later than fifteen days after the leak is found unless the leaking component cannot be repaired until a process unit turnaround occurs.

[OAC rule 3745-21-09(T)(3)]

25. The Director may require a process unit turnaround to occur earlier than the normally scheduled date if the number and severity of leaking components awaiting a turnaround warrant such action. Any such process unit turnaround shall be required by means of an order issued by the Director to the permittee pursuant to division (R) of section 3704.03 of the Ohio Revised Code.

[OAC rule 3745-21-09(T)(4)]

26. The Director may accept an alternative monitoring, recordkeeping and reporting program for that required by paragraph (T)(1) of OAC rule 3745-21-09 if the permittee can demonstrate to the satisfaction of the Director that the alternative program is at least as effective in identifying, documenting and reporting leaks from petroleum refinery equipment as the program outlined in paragraph (T)(1) of OAC rule 3745-21-09. For purposes of this paragraph, any proposed alternative program which the Director finds comparable to the requirements of paragraph (DD)(12) or (DD)(13) of OAC rule 3745-21-09 shall be acceptable to the Director.

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

1. [60.482-10(I)] STANDARDS: CLOSED VENT SYSTEMS AND CONTROL DEVICES  
- 40 CFR 60, subpart VV

The permittee shall record the information specified in paragraphs 1.a. through 1.e. of this section.

- a. [60.482-10(I)(1)]

Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

- a. [60.482-10(I)(2)]

Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

- b. [60.482-10(I)(3)]

For each inspection during which a leak is detected, a record of the information specified in 60.486(c) [see section A.III. of Part II].

- c. [60.482-10(I)(4)]

For each inspection conducted in accordance with 60.485(b) [see section A.V. of Part II] during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

- d. [60.482-10(l)(5)]  
For each visual inspection conducted in accordance with section 60.482-10(f)(i) [see section A.II. of Part II] during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
2. [60.486] RECORD KEEPING REQUIREMENTS, EQUIPMENT LEAKS - 40 CFR 60, subpart VV
- a. [60.486(a)]  
Each permittee subject to the provisions of 40 CFR 60, subpart VV shall comply with the record keeping requirements of this section. A permittee of more than one affected facility subject to the provisions of this subpart may comply with the record keeping requirements for these facilities in one record keeping system if the system identifies each record by each facility.
  - b. [60.486(b)]  
When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8 and 40 CFR 60.483-2 [see section A.II of Part II], the following requirements apply:
    - i. [60.486(b)(1)]  
A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
    - ii. [60.486(b)(2)]  
The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 60.482-7(c) [see section A.II. of Part II] and no leak has been detected during those 2 months.
    - iii. [60.486(b)(3)]  
The identification on equipment except on a valve, may be removed after it has been repaired.
  - c. [60.486(c)]  
When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8 and 40 CFR 60.483-2 [see section A.II of Part II], the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
    - i. [60.486(c)(1)]  
The instrument and operator identification numbers and the equipment identification number.

- ii. [60.486(c)(2)]  
The date the leak was detected and the dates of each attempt to repair the leak.
- iii. [60.486(c)(3)]  
Repair methods applied in each attempt to repair the leak.
- iv. [60.486(c)(4)]  
"Above 10,000" if the maximum instrument reading measured by the methods specified in 60.485(a) [see section A.V. of Part II] after each repair attempt is equal to or greater than 10,000 ppm.
- v. [60.486(c)(5)]  
"Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- vi. [60.486(c)(6)]  
The signature of the person (or designate) whose decision it was that repair could not be effected without a process shutdown.
- vii. [60.486(c)(7)]  
The expected date of successful repair of the leak if a leak is not repaired within 15 days.
- viii. [60.486(c)(8)]  
Dates of process unit shutdown that occur while the equipment is unrepaired.
- ix. [60.486(c)(9)]  
The date of successful repair of the leak.
- d. [60.486(d)]  
The following information pertaining to the design requirements for closed vent systems and control devices described in 60.482-10 [see section A.II. of Part II] shall be recorded and kept in a readily accessible location:
  - i. [60.486(d)(1)]  
Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - ii. [60.486(d)(2)]  
The dates and descriptions of any changes in the design specifications.
  - iii. [60.486(d)(3)]

A description of the parameter or parameters monitored, as required in 60.482-10(e) [see section A.II. of Part II], to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

- iv. [60.486(d)(4)]  
Periods when the closed vent systems and control devices required in 60.482-2, 60.482-3, 60.482-4, and 60.482-5 [see section A.II. of Part II] are not operated as designed, including periods when a flare pilot light does not have a flame.
- v. [60.486(d)(5)]  
Dates of startups and shutdowns of the closed vent systems and control devices required in 60.482-2, 60.482-3, 60.482-4, and 60.482-5 [see section A.II. of Part II].
- e. [60.486(e)]  
The following information pertaining to all equipment subject to the requirements in 60.482-1 to 60.482-10 [see section A.II. of Part II] shall be recorded in a log that is kept in a readily accessible location:
  - i. [60.486(e)(1)]  
A list of identification numbers for equipment subject to the requirements of 40 CFR 60, subpart VV.
  - ii. [60.486(e)(2)]  
A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 60.482-2(e), 60.482-3(i) and 60.482-7(f) [see section A.II. of Part II]. The designation of equipment subject to the requirements of 60.482-2(e), 60.482-3(i), or 60.482-7(f) [see section A.II. of Part II] shall be signed by the permittee.
  - iii. [60.486(e)(3)]  
A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4 [see section A.II. of Part II].
  - iv. [60.486(e)(4)]
    - (a) The dates of each compliance test as required in 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f) [see section A.II. of Part II].
    - (b) The background level measured during each compliance test.
    - (c) The maximum instrument reading measured at the equipment during each compliance test.

- v. [60.486(e)(5)]  
A list of identification numbers for equipment in vacuum service.
  
- a. [60.486(f)]  
The following information pertaining to all valves subject to the requirements of 60.482-7(g) and (h) [see section A.II. in Part II] shall be recorded in a log that is kept in a readily accessible location:
  - i. [60.486(f)(1)]  
A list of identification numbers for valves that are designated as unsafe-to-monitor, an explanation for each valve stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve.
  - ii. [60.486(f)(2)]  
A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each value.
  
- g. [60.486(g)]  
The following information shall be recorded for valves complying with 40 CFR 60.483-2:
  - i. A schedule of monitoring.
  - ii. The percent of valves found leaking during each monitoring period.
  
- h. [60.486(h)(1)-(2)]  
The following information shall be recorded in a log that is kept in a readily accessible location. The design criterion required in 60.482-2(d)(5) and 60.482-3(e)(2) [see section A.II. in Part II], and an explanation of the design criterion; along with any changes to this criterion and the reasons for the changes.
  
- i. [60.486(i)(1)-(3)]  
The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d):
  - i. an analysis demonstrating the design capacity of the affected facility;
  - ii. a statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and
  - iii. an analysis demonstrating that equipment is not in VOC service.
  
- j. [60.486(j)]

Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

- a. [60.486(k)]  
The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to 40 CFR 60, subpart VV.
3. [OAC rule 3745-21-09(T)(1)(f)]  
A monitoring log shall be maintained for all leaking components which are tagged in accordance with paragraph (T)(1)(e) of OAC rule 3745-21-09. The monitoring log shall contain, at a minimum, the following data:
- [OAC rule 3745-21-09(T)(1)(f)(i)]
- a. The name of the process unit where the leaking component is located;
  - b. The type of leaking component (such as valve, seal, or other component);
  - c. The tag number of the leaking component;
  - d. The date on which the leaking component was detected;
  - e. The date on which the leaking component was repaired;
  - f. The date and results of the monitoring performed within five working days after the leaking component was repaired;
  - g. A record of the calibration of the monitoring instrument;
  - h. A list of those leaking components which cannot be repaired until the next process unit turnaround; and
  - i. The total number of components monitored and the total number of components found leaking during the calendar year;
- [OAC rule 3745-21-09(T)(1)(g)]
4. A copy of any monitoring log shall be retained by the permittee for a minimum of five years after the date on which the record was made or the report was prepared;

[OAC rule 3745-21-09(T)(1)(h)]

5. A copy of any monitoring log shall immediately be made available to the Director or an authorized representative of the Director, upon verbal or written request, at any reasonable time.

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

1. [60.487] REPORTING REQUIREMENTS, EQUIPMENT LEAKS - 40 CFR 60, subpart VV
  - a. [60.487(a)]

Each permittee subject to the provisions of this subpart shall submit semiannual reports to the Toledo Division of Environmental Services and Administrator beginning six months after the initial start-up date.
  - b. [60.487(c)(1) - (4)]

All semiannual reports to the Toledo Division of Environmental Services and Administrator shall include the following information, summarized from the information in 60.486 [see section A.III. of Part II]:

    - i. [60.487(c)(1)]

Process unit identification.
    - ii. [60.487(c)(2)]

For each month during the semiannual reporting period:

      - (a) number of valves for which leaks were detected as described in 60.482(7)(b) [see section A.II. in Part II];
      - (b) number of valves for which leaks were not repaired as required in paragraph 60.482-7(d)(1) [see section A.II. in Part II];
      - (c) number of pumps for which leaks were detected as described in 60.482-2(b) and (d)(6)(i) [see section A.II. in Part II];
      - (d) number of pumps for which leaks were not repaired as required in 60.482-2(c)(1) and (d)(6)(ii) [see section A.II. in Part II];
      - (e) number of compressors for which leaks were detected as described in 60.482-3(f) [see section A.II. in Part II];
      - (f) number of compressors for which leaks were not repaired as required in 60.482-3(g)(1) [see section A.II. in Part II]; and
      - (g) the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

- iii. [60.487(c)(3)]  
Dates of process unit shutdowns which occurred within the semiannual reporting period.
  - iv. [60.487(c)(4)]  
Revisions to items reported according to 40 CFR 60.487(b) if changes have occurred since the initial report or subsequent revisions to the initial report.
  - c. [60.487(d)]  
The permittee electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Toledo Division of Environmental Services and Administrator of the alternative standard selected 90 days before implementing either of the provisions.
  - d. [60.487(e)]  
The permittee shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of 40 CFR 60 subpart VV except that the permittee shall notify the Toledo Division of Environmental Services and Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.
2. [40 CFR 63.642(e)]  
Except as specified in 40 CFR part 63 subpart CC, the permittee shall keep copies of all applicable reports and records required subpart CC for at least 5 years. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.
3. [OAC rule 3745-21-09(T)(1)(i)]  
A report shall be submitted to the Toledo Division of Environmental Services by the fifteenth day of January, April, July and October that gives the total number of components monitored during the previous three calendar months, gives the total number of components found leaking during the previous three calendar months, identifies all components which were found leaking during the previous three calendar months but which were not repaired within fifteen days and identifies all leaking components which cannot be repaired until the next process unit turnaround.

## V. Testing Requirements

1. [60.485(a)]

In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).
2. [60.485(b)]

The permittee shall determine compliance with the standards in 60.482, 60.483, and 60.484 [see section A.II. in Part II] as follows. Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

  - a. [60.485(b)(1)(i)]

zero air (less than 10 ppm of hydrocarbon in air); and
  - b. [60.485(b)(1)(ii)]

a mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.
3. [60.485(c)]

The permittee shall determine compliance with the no detectable emission standards in 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f) and 60.482-10(e) [see section A.II. in Part II] as follows:

  - a. The requirements of paragraph (b) shall apply.
  - b. Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicates by the instrument and the background level is compared with 500 ppm for determining compliance.
4. [60.485(d)]

The permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC series, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

  - a. [60.485(d)(1)]

Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

- b. [60.485(d)(2)]  
Organic compounds that are considered by the Director and Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.
  - c. [60.485(d)(3)]  
Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Director and Administrator disagree with the judgment, paragraphs d.i and d.ii of this section shall be used to resolve the disagreement.
5. [60.485(e)]  
The permittee shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply:
- a. [60.485(e)(1)]  
The vapor pressure of one or more of the components is greater than 0.3 kPa at 20°C. Standard reference texts or ASTM D-2879 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the vapor pressures.
  - b. [60.485(e)(2)]  
The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.
  - c. [60.485(e)(3)]  
The fluid is a liquid at operating conditions.
6. [60.485(f)]  
Samples used in conjunction with paragraphs d., e., and g. of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
7. [60.485(g)]  
The permittee shall determine compliance with the standards of flares as follows:
- a. [60.685(g)(1)]  
Method 22 shall be used to determine visible emissions.
  - b. [60.685(g)(2)]  
A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.
  - c. [60.685(g)(3)]  
The maximum permitted velocity ( $V_{\max}$ ) for air-assisted flares shall be computed using the following equation:

$$V_{\max} = 8.706 + 0.7084 H_T$$

where:

$V_{\max}$  = maximum permitted velocity, m/sec.

$H_T$  = net heating value of the gas being combusted, MJ/scm.

- d. [60.685(g)(4)]  
The net heating value ( $H_T$ ) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_i^n C_i H_i$$

Where:

$K$  = Conversion constant,  $1.740 \times 10^7$  (g-mole)(MJ)/ (ppm-scm-kcal)  
(metric units)

=  $4.674 \times 10^8$  [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

$C_i$  = Concentration of sample component "i," ppm

$H_i$  = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

- e. [60.685(g)(5)]  
Method 18 and ASTM D 2504-67 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the concentration of sample component "i."
- f. [60.685(g)(6)]  
ASTM D 2382-76 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.
- g. [60.685(g)(7)]  
Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

**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**

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B001 - H <sub>2</sub> Plant Furnace, 221 MMBtu per hr (PR-2980)	OAC rule 3745-31-02(A)(2)  OAC rule 3745-31-05(D) (PTI 04-1046 as modified on August 5, 1998)  OAC rule 3745-17-07  OAC rule 3745-17-10  OAC rule 3745-18-54(W)(1)	See 2.a through 2.c  33.15 pounds per hour NO <sub>x</sub> ; 96.80 tons per year NO <sub>x</sub> based on a rolling, 12-month summation of the monthly emissions; See A.I.2.e and A.II.3  Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule  0.020 pound of particulate emissions per million Btu of heat input  See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c** By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.
- 2.d** 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.e** The emission limitation of 27.84 tons per year SO<sub>2</sub> based on a rolling, 12-month summation of the monthly emissions established pursuant to PTI 04-1046 is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.
3. The permittee shall continue to implement the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit from the time of startup so as to minimize excess emissions. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The PMMAP shall include the following:
  - a. a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
  - b. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,
  - c. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

### III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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 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 NO<sub>x</sub> emission rates in units of tons per month and tons per year in accordance with the procedure outlined in section V.
3. 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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, 16 shall be used for conducting the relative accuracy evaluations.
4. 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 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.
5. 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 record the amount of adjustment.
6. 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.

7. 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.
8. 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.
9. 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.

10. 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.
11. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when the NO<sub>x</sub> emissions exceed 33.15 lbs/hr and/or 96.80 tons/yr based on a rolling, 12-month summation of the monthly emissions.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
4. 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:
  - 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 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.
5. 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.
- c. The permittee shall submit a quarterly report for each CEMS the accuracy results from Section 6 and the CD assessment results from Section 4. 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:
  - 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 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 USEPA performance audit samples described in Section 5 and the applicable RM's.
  - vi. Summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5.

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

## **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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

d. Emission Limitation:

33.15 pounds per hour NO<sub>x</sub>

Applicable Compliance Method:

Multiply the actual firing rate in MMBtu/hr by the NO<sub>x</sub> emission factor determined during the most recent stack test. A stack test was conducted on this emissions unit on June 17, 1999 which resulted in an emission factor of 0.079 lb NO<sub>x</sub> per MMBtu. If required, the permittee shall establish a new NO<sub>x</sub> emission factor in units of pounds NO<sub>x</sub> per million Btu of heat input using Methods 3A, 7E and 19 of 40 CFR Part 60. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

96.80 tons per year NO<sub>x</sub> based on a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Multiply the stack test derived emission factor by the monthly average hourly fuel gas burned to determine the monthly total NO<sub>x</sub> emissions. Add the monthly total NO<sub>x</sub> emissions to the total NO<sub>x</sub> emissions for the previous 11 months to determine the rolling 12-month total NO<sub>x</sub> emissions.

## 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.
2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.
3. Nothing in this permit related to the PMMAP shall be construed to relieve the permittee from its obligation to comply with the requirements of OAC rule 3745-15-06(A) and (B), and OAC rule 3750-25-25 (related to toxic release reporting). Nothing in the permit related to the PMMAP shall modify or limit the Director's authority under OAC rule 3745-15-06(D) to require a preventive maintenance and malfunction abatement plan which is acceptable to the Director if, as the rule states, in the judgement of the Director, such a plan is needed for any emissions units at this facility.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B001 - H2 Plant Furnace, 221 MMBtu per hr (PR-2980)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003 - ADHT Stripper Reboiler, 52 MMBtu per hr (PR-2974)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003 - ADHT Stripper Reboiler, 52 MMBtu per hr (PR-2974)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004 - Riley Boiler, 332 MMBtu per hr (PR-2975)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

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:

- 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 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.



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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004 - Riley Boiler, 332 MMBtu per hr (PR-2975)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005 - Reformer 2 Regenerator Heater, 30 MMBtu per hr (PR-2985)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

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:

- 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005 - Reformer 2 Regenerator Heater, 30 MMBtu per hr (PR-2985)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006 - Reformer 2 Furnace, 285 MMBtu per hr (PR-2987)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-31-05(D) (PTI 04-1046 as modified on August 5, 1998)	42.0 pounds per hour NO <sub>x</sub> ; 122.64 tons per year NO <sub>x</sub> based on a rolling, 12-month summation of the monthly emissions; See A.II.3
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.
- 2.d The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## II. Operational Restrictions

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.
3. The permittee shall continue to implement the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit from the time of startup so as to minimize excess emissions. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The PMMAP shall include the following:
  - a. a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
  - b. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,
  - c. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

## III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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 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 NO<sub>x</sub> emission rates in units of tons per month and tons per year in accordance with the procedure outlined in section V.

3. 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
4. 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.
5. 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 record the amount of adjustment.
6. 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.
7. 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.
8. 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.

9. 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.

10. 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.
11. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each day when the NO<sub>x</sub> emissions exceed 42.0 lbs/hr and/or 122.64 tons/yr based on a rolling, 12-month summation of the monthly emissions.
3. The deviation reports under shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
4. 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:

- 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 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.
5. 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.
  - c. The permittee shall submit a quarterly report for each CEMS the accuracy results from Section 6 and the CD assessment results from Section 4. 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:
    - 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 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 USEPA performance audit samples described in Section 5 and the applicable RM's.
- vi. Summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5.

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

## 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:  
  
0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

d. Emission Limitation:

42.0 pounds per hour NO<sub>x</sub>

Applicable Compliance Method:

Multiply the actual firing rate in MMBtu/hr by the NO<sub>x</sub> emission factor determined during the most recent stack test. A stack test was conducted on this emissions unit on August 18, 1999 which resulted in an emission factor of 0.076 lb NO<sub>x</sub> per MMBtu. If required, the permittee shall establish a new NO<sub>x</sub> emission factor in units of pounds NO<sub>x</sub> per million Btu of heat input using Methods 3A, 7E and 19 of 40 CFR Part 60. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

122.64 tons per year NO<sub>x</sub> based on a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Multiply the stack test derived emission factor by the monthly average hourly fuel gas burned to determine the monthly total NO<sub>x</sub> emissions. Add the monthly total NO<sub>x</sub> emissions to the total NO<sub>x</sub> emissions for the previous 11 months to determine the rolling 12-month total NO<sub>x</sub> emissions.

## 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.

2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.
3. Nothing in this permit related to the PMMAP shall be construed to relieve the permittee from its obligation to comply with the requirements of OAC rule 3745-15-06(A) and (B), and OAC rule 3750-25-25 (related to toxic release reporting). Nothing in the permit related to the PMMAP shall modify or limit the Director's authority under OAC rule 3745-15-06(D) to require a preventive maintenance and malfunction abatement plan which is acceptable to the Director if, as the rule states, in the judgement of the Director, such a plan is needed for any emissions units at this facility.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006 - Reformer 2 Furnace, 285 MMBtu per hr (PR-2987)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B008 - Iso 2 Feed Heaters, 97.4 MMBtu per hr (PR-2994)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.d
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

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:

- 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 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.



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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B008 - Iso 2 Feed Heaters, 97.4 MMBtu per hr (PR-2994)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B009 - Iso 2 Stabilizer Reboiler, 110 MMBtu per hr (PR-2992)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(5)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

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:

- 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B009 - Iso 2 Stabilizer Reboiler, 110 MMBtu per hr (PR-2992)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B010 - Iso 2 Splitter Reboiler, 110 MMBtu per hr (PR-2993)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(5)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

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:

- 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
    - 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 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.
    - e. Results from USEPA performance audit samples described in Section 5 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.

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

## **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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B010 - Iso 2 Splitter Reboiler, 110 MMBtu per hr (PR-2993)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B013 - Reformer 1 Regenerator Heater, 4.5 MMBtu per hr (PR-2961)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

## **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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### **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 within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B013 - Reformer 1 Regenerator Heater, 4.5 MMBtu per hr (PR-2961)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B014 - Reformer 1 Furnace, 248 MMBtu per hr (PR-2962)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B014 - Reformer 1 Furnace, 248 MMBtu per hr (PR-2962)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B015 - Crude 1 Heater, 280 MMBtu per hr (PR-2954)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## **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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B015 - Crude 1 Heater, 280 MMBtu per hr (PR-2954)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B016 - Coker 1 Furnace, 91 MMBtu per hr (PR-2940)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-31-05(D) (PTI 04-1046 as modified on August 5, 1998)	See A.II.3 and A.II.4
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.
- 2.d The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## II. Operational Restrictions

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.
3. This emissions unit shall be limited to an input capacity of 262,800 MMBtu/yr based on a rolling, 12-month summation of the monthly firing rates.
4. The permittee shall continue to implement the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit from the time of startup so as to minimize excess emissions. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The PMMAP shall include the following:
  - a. a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
  - b. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,
  - c. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

## III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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 monitor and record the monthly total firing rate in terms of standard cubic feet and the monthly average heating value of the fuel gas fired. From these data, the permittee shall

calculate and record the monthly total firing rate in terms of MMBtu in accordance with the procedures in A.V and shall calculate and record the rolling 12-month summation of the monthly firing rates in MMBtu per rolling 12-month period.

3. 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
4. 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.
5. 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 record the amount of adjustment.
6. 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.
7. 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.

8. 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.
9. 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.

10. 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.
11. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports that identify each month when the rolling, 12-month summation of the monthly firing rate exceeded 262,800 MMBtu.

3. The deviation reports under shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
4. 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:
  - 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 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.
5. 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.
  - c. The permittee shall submit a quarterly report for each CEMS the accuracy results from Section 6 and the CD assessment results from Section 4. 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:

- 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 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 USEPA performance audit samples described in Section 5 and the applicable RM's.
- vi. Summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5.

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

## 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:  
  
0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

d. Emission Limitation:

262,800 MMBtu/yr

Applicable Compliance Method:

Multiply the monthly average MMSCF of fuel burned by the monthly average Btu content (MMBtu/MMSCF) to get the monthly total. Add the monthly total to the total for the previous 11 months to determine the rolling, 12-month total MMBtu/yr.

## 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.
2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.
3. Nothing in this permit related to the PMMAP shall be construed to relieve the permittee from its obligation to comply with the requirements of OAC rule 3745-15-06(A) and (B), and OAC rule 3750-25-25 (related to toxic release reporting). Nothing in the permit related to the PMMAP shall modify or limit the Director's authority under OAC rule 3745-15-06(D) to require a preventive

maintenance and malfunction abatement plan which is acceptable to the Director if, as the rule states, in the judgement of the Director, such a plan is needed for any emissions units at this facility.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B016 - Coker 1 Furnace, 91 MMBtu per hr (PR-2940)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B017 - Coker 2 Furnace, 72 MMBtu per hr (PR-2941)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B017 - Coker 2 Furnace, 72 MMBtu per hr (PR-2941)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B018 - FCC Preheat Furnace, 103 MMBtu per hr (PR-2955)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(5)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B018 - FCC Preheat Furnace, 103 MMBtu per hr (PR-2955)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B019 - Crude Vac 2 Furnace, 240 MMBtu per hr (PR-2945)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-31-05(D) (PTI 04-1046 as modified on August 5, 1998)	262.8 tons per year NO <sub>x</sub> based on a rolling, 12-month summation of the monthly emissions; 21.02 tons per year SO <sub>2</sub> based on a rolling, 12-month summation of the monthly emissions; See A.II.3
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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. Until September 30, 2003, the Vacuum 2 Unit vent gas currently burned in this emissions unit is excluded from this requirement.

- 2.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.
- 2.d The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A)(2).

## II. Operational Restrictions

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.
3. The permittee shall continue to implement the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit from the time of startup so as to minimize excess emissions. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The PMMAP shall include the following:
  - a. a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
  - b. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,
  - c. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

## III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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 monitor and record the hourly, daily and monthly average firing rate in terms of standard cubic feet per hour. From this data, the permittee shall calculate and maintain records of the monthly and rolling 12-month total SO<sub>2</sub> and NO<sub>x</sub> emission rates in units of tons per month and tons per year in accordance with the procedure outlined in section V.
3. 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
4. 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.
5. 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 record the amount of adjustment.
6. 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.
7. 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.

8. 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.
9. 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.

10. 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.
11. The permittee shall maintain records of the monthly average net H<sub>2</sub>S of the fuel burned in this emissions unit.
12. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

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

1. The permittee shall submit deviation (excursion) reports that identify each day when the NO<sub>x</sub> emissions exceed 262.8 tons/yr based on a rolling, 12-month summation of the monthly emissions. The permittee shall submit deviation (excursion) reports that identify each day when the SO<sub>2</sub> emissions exceed 21.02 tons/yr based on a rolling, 12-month summation of the monthly emissions.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
4. 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:
  - 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 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.
5. 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.

- c. The permittee shall submit a quarterly report for each CEMS the accuracy results from Section 6 and the CD assessment results from Section 4. 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:
  - 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 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 USEPA performance audit samples described in Section 5 and the applicable RM's.
  - vi. Summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5.

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

6. Unless otherwise specified above, the reports required to be submitted under A.IV. shall be submitted in accordance with the General Terms and Conditions Part I A.1.c.

## **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

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BP Products North America Inc  
PTI Application: **04-01290**  
**Issued: 7/25/2002**

Facility ID: **0448020007**  
Emissions Unit ID: B019

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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

d. Emission Limitation:

262.8 tons per year NO<sub>x</sub> based on a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

If required, the permittee shall establish a new NO<sub>x</sub> emission factor in units of pounds NO<sub>x</sub> per million Btu of heat input using Methods 3A, 7E and 19 of 40 CFR Part 60. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. Multiply the stack test derived emission factor by the monthly average hourly fuel gas burned to determine the monthly total NO<sub>x</sub> emissions. Add the monthly total NO<sub>x</sub> emissions to the total NO<sub>x</sub> emissions for the previous 11 months to determine the rolling 12-month total NO<sub>x</sub> emissions.

e. Emission Limitation:

21.02 tons per year SO<sub>2</sub> based on a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Multiply the monthly average net H<sub>2</sub>S concentration by the monthly total gas flow to determine the lbs H<sub>2</sub>S per month. Convert H<sub>2</sub>S to SO<sub>2</sub> at a rate of 34 pounds H<sub>2</sub>S to 64 pounds SO<sub>2</sub> emissions. Add the monthly total to the total for the previous 11 calendar months to determine the rolling 12-month total SO<sub>2</sub> emissions.

**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.
2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B019 - Crude Vac 2 Furnace, 240 MMBtu per hr (PR-2945)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B020 - Power Boiler, 291 MMBtu per hr (PR-2967)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(5)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## **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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## **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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B020 - Power Boiler, 291 MMBtu per hr (PR-2967)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B022 - Naptha Treater Heater, 72 MMBtu per hr (PR-2958)	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(1)	See 2.d

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC Rule 3745-31-02(A)(2).

## **II. Operational Restrictions**

1. The permittee shall only burn natural gas, LP gas and/or refinery fuel gas in this emissions unit.
2. The quality of the natural gas, LP 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

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

1. For each day during which the permittee burns a fuel other than refinery fuel gas, LP 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas, LP gas, and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B022 - Naptha Treater Heater, 72 MMBtu per hr (PR-2958)		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B025 - Asphalt Plant Heater, 7.7 MMBtu per hr	OAC rule 3745-31-02(A)(2)	See 2.a through 2.c
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule
	OAC rule 3745-17-10	0.020 pound of particulate emissions per million Btu of heat input
	OAC rule 3745-18-54(W)(5)	Exempt (See 2.d)

**2. Additional Terms and Conditions**

- 2.a This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.b 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 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.c By no later than September 30, 2003, this emissions unit shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR 60, Subparts A and J as those subparts apply to fuel gas combustion devices.

- 2.d** Fuel burning equipment which have rated heat input capacities equal to, or less than ten MMBtu per hour total rated capacity are exempt from OAC rule 3745-18-06(D), (F), and (G), and OAC rule 3745-18-54.

## 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 the allowable hydrogen sulfide emission limitation of 0.10 grain per dry standard cubic foot as a volume-weighted, rolling 3-hour average.

## 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.
  - 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
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 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 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.

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.

#### 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 within 30 days after the deviation occurs.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. 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:
  - 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 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, the accuracy results from Section 6 and the CD assessment results from Section 4. 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.
  - 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 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.
  - e. Results from USEPA performance audit samples described in Section 5 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.

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

## 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:

0.020 pound of particulate emissions per million Btu of heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures specified in OAC rule 3745-17-03(B)(9).

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:

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).

## 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.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B025 - Asphalt Plant Heater 7.7 MMBtu per hr		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P007 - Fluid Catalytic Cracking Unit (FCCU) with CO Boiler	OAC rule 3745-31-02(A)(2)	See A.I.2.d through A.I.2.g
	OAC 3745-17-07(A)	Visible emissions 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
	OAC 3745-17-11(A)	91.7 pounds per hour particulate emissions (See A.I.2.b)
	OAC 3745-18-54(W)(6)	0.92 pounds of sulfur dioxide per one thousand pounds of fresh feed. (See A.I.2.b)
	OAC rule 3745-18-54(W)(1)	See A.I.2.h
	OAC 3745-21-09(T)	See Part II A.II.19 through 26
	40 CFR Part 63 Subpart CC	See A.I.2.a
	40 CFR Part 63 Subpart UUU	See A.I.2.i and j

**2. Additional Terms and Conditions**

- 2.a The permittee shall comply with the equipment leak standards as outlined under A.I.2.c through A.I.2.e in Part II of this permit.

- 2.b** This emission limit applies to emissions from the FCC Unit.
- 2.c** This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.d** The permittee shall limit CO emissions from the FCCU to 500 parts per million by volume dry basis (ppmvd) as a one-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 source.
- 2.e** 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 six months after the planned 2007 shutdown.
- 2.f** The permittee shall not burn in the CO Boiler any refinery fuel gas that has a volume-weighted, rolling 3-hour average 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.g** By no later than September 30, 2003, 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 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.
- 2.h** 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.i** The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63 Subpart UUU by no later than April 11, 2005 unless an extension of compliance is granted under 40 CFR 63.1563(c).
- 2.j** The permittee shall comply with the applicable emission limitations specified under 40 CFR 63.1564(a)(1) and 63.1565(a)(1).

## II. Operational Restrictions

1. The permittee shall only burn natural gas and/or refinery fuel gas in the CO Boiler.
2. The permittee shall comply with each applicable operating limit specified under 40 CFR 63.1564(a)(2) and 63.1565(a)(2).
3. The permittee shall operate at all times according to the procedures of the operating plan prepared under A.VI.2 of this permit.
4. The permittee shall comply with the work practice standards for control equipment bypass lines under 40 CFR 63.1569(a).
5. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).  
  
[40 CFR 63.1570(e)]
6. The permittee shall operate in accordance with the startup, shutdown, and malfunction plan that was developed under A.VI.3.

## III. Monitoring and/or Recordkeeping Requirements

1. 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.  
  
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.
2. The permittee shall demonstrate continuous compliance with the applicable emission limits specified under A.I.2.j according to the procedures specified under 40 CFR 63.1564(c)(1) Table 6.
3. The permittee shall demonstrate continuous compliance with the applicable operating limits specified under A.II.2.j using the procedures specified under 40 CFR 63.1564(c)(1) Table 7.
4. The permittee shall operate and maintain existing equipment to continuously monitor and record SO<sub>2</sub> from the FCC Unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
5. 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.

- 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.
  - b. The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - 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.
6. 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 of the H<sub>2</sub>S monitor 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.
  7. 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 record the amount of adjustment.
  8. 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.
  9. 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.
  10. 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.

11. 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.

12. 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.
13. For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas in the CO Boiler, the permittee shall maintain a record of the type and quantity of fuel burned.
14. 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.
15. The permittee shall maintain a record of the operating time of the FCC Unit, the CO Boiler, and a record of all periods when the emissions from the FCC Unit bypass the CO Boiler.
16. The permittee shall install, operate, and maintain a continuous monitoring system(s) according to the requirements of 40 CFR 63.1572 and Table 3 of 40 CFR Part 63 Subpart UUU..
17. The permittee shall demonstrate continuous compliance with the work practice standard of A.II.3 by maintaining records to document conformance with the procedures in the operation, maintenance, and monitoring plan prepared under A.VI.2.

18. During the period between the compliance date under A.I.2.i and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, the permittee shall maintain a log detailing the operation and maintenance of the process and emissions control equipment.
19. The permittee shall keep the following records.
  - a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart UUU, including all documentation supporting any initial notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
  - b. The records in 40 CFR 63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction.
  - c. Records of performance tests, performance evaluations, and opacity and visible emission observations as required by 40 CFR 63.10(b)(2)(viii).
  - d. For each continuous emission monitoring system or continuous opacity monitoring system, the permittee shall keep the records required below.
    - i. Records described in 40 CFR 63.10(b)(2)(vi) through (ix).
    - ii. Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).
    - iii. Previous (i.e., superceded) versions of the performance evaluation as required in 40 CFR 63.8(d)(3).
    - iv. Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in 40 CFR 63.8(f)(6)(i).
    - v. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  - e. Records in 40 CFR 63.6(h) for visible emissions observations.
  - f. Records required by Tables 6, 7, 13, 14 and 39 of 40 CFR Part 63 Subpart UUU.
  - g. A current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. Records to show compliance with the procedures of the operation, maintenance and monitoring plan shall be maintained. A log shall be maintained detailing the operation and maintenance of the process and emissions control equipment.

- h. Changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.
20. The permittee shall maintain these records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1) and be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

The permittee shall maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The records may be kept offsite for the remaining 3 years.

21. The permittee shall install, operate and maintain each continuous parameter monitoring system according to the requirements of 40 CFR 63.172(c)(1) through (7).
22. Except as otherwise provided above, all records required under Section A.III of this permit shall be maintained in accordance with the Monitoring and Related Recordkeeping Requirements of Part I - General Terms and Conditions.

#### IV. Reporting Requirements

1. 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).

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. The permittee shall submit a sulfur dioxide 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 12-hour period in which emissions exceed 0.92 pounds sulfur dioxide per thousand pounds of fresh feed. 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 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.
3. 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. The data assessment report described under 40 CFR 60 Appendix F Procedure 1 shall also be submitted with the summary report form. 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.
4. 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:

- 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 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.
5. 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.
6. 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 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.
- 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 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.
- e. Results from EPA performance audit samples described in Section 5 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.

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

7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than 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.
8. 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.
  - 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).
  - 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.

- [40 CFR 63.1574(a)]
9. Except as allowed for in (a) through (c), the permittee shall submit all of the notifications in 40 CFR 63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6) and 63.9(b) through (h) that apply by the dates as specified.
- a. The notification of intention to construct or reconstruct shall be submitted according to 40 CFR 63.9(B)(5).
- b. The permittee shall submit the notification of intent to conduct a performance test required in 40 CFR 63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).
- c. If required to conduct a performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, the permittee shall submit a notification of compliance status according to 40 CFR 63.9(h)(2)(ii). The permittee can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. The permittee shall provide a duplicate notification to the U.S. EPA Region V Administrator. If the required information has been submitted previously, a separate notification of compliance status does not need to be provided. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.
- i. For each initial compliance demonstration that does not include a performance test, the permittee shall submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.
- ii. For each initial compliance demonstration that includes a performance test, the permittee shall submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for the affected source in 40 CFR 63.1573.
- d. The initial compliance certification report shall include the information contained in Table 42 of 40 CFR Part 63 subpart UUU.
- e. If an extension of compliance is requested for an existing catalytic cracking unit as allowed in 40 CFR 63.1563(c), the permittee shall submit a notification to the Toledo Division of Environmental Services containing the required information by October 13, 2003.
10. The permittee shall submit semiannual compliance reports containing the following information.
- [40 CFR 63.1575( d)]
- a. For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is not

used to comply with the emission limitation or work practice standard in 40 CFR Part 63 Subpart UUU, the compliance report shall contain the information in 10.k and 10.a.i through iii below.

- i. The total operating time of each affected source 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).

[40 CFR 63.1575(e)]

- b. For each deviation from an emission limitation occurring at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is used to comply with the emission limitation under 40 CFR Part 63 Subpart UUU, the permittee shall include the information in paragraphs a.i through iii above and b.i through xiii below.
  - i. The date and time that each malfunction started and stopped.
  - ii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.
  - iii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in 40 CFR 63.8.
  - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a startup, shutdown, or malfunction or during another period.
  - v. A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulations for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.
  - vi. A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  - vii. A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting

period (recorded in minutes for opacity and hours for gases and in the averaging time as specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system and or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

- viii. A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emissions monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
- ix. An identification of each HAP that was monitored at the affected source.
- x. A brief description of the process.
- xi. The monitoring equipment manufacturer(s) and model number(s).
- xii. The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.
- xiii. A description of any change in the continuous emission monitoring system or continuous opacity monitoring system.

[40 CFR 63.1575( c)(4)]

- c. If there are no deviations from any emission limitation that applies and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted.

[40 CFR 63.1575( f)(1)]

- d. A copy of any performance test done during the reporting period. The report may be included in the next semiannual report. The copy shall include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee shall submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

[40 CFR 63.1575( f)(2)]

- e. Any requested change in the applicability of an emission standard (e.g., to change cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. The permittee shall include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

[40 CFR 63.1575( g)]

- f. The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

[40 CFR 63.1575( h)]

- g. The reporting requirements in paragraphs i. and ii. below apply to startups, shutdowns, and malfunctions:
  - i. When actions taken to respond are consistent with the plan, The permittee is not required to report these events in the semiannual compliance report and the reporting requirements in 40 CFR 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.
  - ii. When actions taken to respond are not consistent with the plan, the permittee shall report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 CFR 63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

[40 CFR 63.1575(i)]

- h. If the Toledo Division of Environmental Services has approved a period of planned maintenance for the catalytic cracking unit according to the requirements of 40 CFR 63.1575(j), the permittee shall include the following information in the compliance report.
  - i. In the compliance report due after the 6-month periods before maintenance is to begin, the permittee shall include a full copy of the written request to the Toledo Division of Environmental Services and written approval received from the Toledo Division of Environmental Services.
  - ii. In the compliance report due after the routine planned maintenance is complete, the permittee shall include a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, and the total number of hours during those 6 months that the control device did not meet the emission limitations and monitoring requirements as a result of the approved routine planned maintenance.

[40 CFR 63.1575(b)(1,2)]

- i. The first compliance report shall cover the period beginning on April 11 to June 30, 2005 and shall be postmarked or delivered by July 31, 2005.

[40 CFR 63.1575(b)(3,4)]

- j. Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and the compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.  
  
[40 CFR 63.1575(c)(1-3)]
- k. The compliance report shall contain the information required in paragraphs (i) through iii. below.
  - i. Company name and address.
  - ii. Statement by a responsible official, with the official's name, title, and signature, certifying the accuracy of the content of the report.
  - iii. Date of report and beginning and ending dates of the reporting period.

## 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:  
  
The monitoring and recordkeeping requirements under A.III.1 shall be used to demonstrate compliance. If required, Method 9 of 40 CFR Part 60 Appendix A shall be used to demonstrate compliance.
  - b. Emission Limitation:  
  
91.7 pounds per hour particulate emissions  
  
Applicable Compliance Method:  
  
If required, the procedures specified under OAC rule 3745-17-03(B)(10) shall be used to demonstrate compliance.
  - c. 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.

d. Emission Limitation:

0.92 pounds sulfur dioxide per thousand pounds of fresh feed

Applicable Compliance Method:

The monitoring and recordkeeping requirements under A.III shall be used to demonstrate compliance. If required, the procedures specified under OAC rule 3745-18-04(A) shall be used to demonstrate compliance.

e. 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:

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).

f. 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.

g. Emission Limitation:

500 ppmvd as a one-hour average

Applicable Compliance Method:

The Monitoring and/or Recordkeeping Requirements of A.III shall be used to demonstrate compliance. 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.

h. Emission Limitation:

Emission limitation options under A.I.2.j

Applicable Compliance Method:

The permittee shall demonstrate continuous compliance with the emission limitation options according to A.III.2

[40 CFR 63.1564(b)(2)]

2. The permittee shall conduct a performance test according to the requirements in 40 CFR 63.1571 and under the conditions specified in Table 4 of 40 CFR Part 63 Subpart UUU. The test shall be conducted no later than 150 days after April 11, 2005, or 150 days after the compliance extension if an extension is granted under 40 CFR 63.1563(c).
3. The permittee shall establish each site-specific operating limit in Table 2 of 40 CFR Part 63 Subpart UUU according to the procedures in Table 4.
4. The permittee shall use the procedures in 40 CFR 63.1564(b)(4)(i) through (iv) to determine initial compliance with the emission limitations specified under A.I.2.j.
5. The permittee shall demonstrate initial compliance with A.I.2.j according to Table 5 of 40 CFR Part 63 Subpart UUU.
6. The permittee shall demonstrate initial compliance with the work practice standard in 40 CFR 63.1564(a)(3) by submitting the operation, maintenance, and monitoring required under A.VI.2 to the Toledo Division of Environmental Services as part of the Notification of Compliance Status.
7. The permittee shall demonstrate initial compliance with A.III.4 as required under 40 CFR 63.1569(b).

## 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 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 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 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.

[40 CFR 63.1564(a)(3) and 63.1574(f)]

2. The permittee shall prepare an operation, maintenance, and monitoring plan for each affected source, control system, and continuous monitoring system.
  - a. The plan shall be submitted to the Toledo Division of Environmental Services for review and approval along with the notification of compliance status.

- b. Each plan shall include, at a minimum, the information specified in paragraphs i. through ix. below.
  - i. Process and control device parameters to be monitored for each affected source, along with established operating limits.
  - ii. Procedures for monitoring emissions and process and control device operating parameters for each affected source.
  - iii. Procedures that will be used to determine the coke burn-rate, the volumetric flow rate (if process data is used rather than direct measurement).
  - iv. Procedures and analytical methods that will be used to determine the equilibrium catalyst Ni concentration, the equilibrium catalyst Ni concentration monthly rolling average, and the hourly or hourly average Ni operating value.
  - v. Procedures that will be used to determine the pH of the water (or scrubbing liquid) exiting a wet gas scrubber if pH strips are used.
  - vi. Procedures that will be used to determine the gas flow rate for a catalytic cracking unit if the alternative procedure based on air flow and temperature is used.
  - vii. Monitoring schedule, including when an affected source (e.g., during coke burn-off, regeneration process) will and will not be monitored.
  - viii. Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system used to meet an emission limit under A.I.2.j. This plan shall include procedures that will be used for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.
  - ix. Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.
3. The permittee shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). The SSMP must require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator of USEPA will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 40 CFR 63.6(e) and the contents of the SSMP.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P007 - FCC/CO Boiler		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P009 - Sulfur Recovery Unit No. 1 with Tail Gas Treater , Thermal Oxidizer, and sulfur pit	OAC rule 3745-31-02(A)(2)	See A.I.2.c and A.I.2.d
	OAC rule 3745-31-05(D) (PTI 04-1046 as modified on August 5, 1998)	See A.II.1
	OAC 3745-18-54(W)(7)	See A.I.2.b
	OAC 3745-21-09(T)	See Part II A.II.19 through 26
	40 CFR Part 60 Subpart J 40 CFR Part 52.21	250 ppm by volume (dry basis) of sulfur dioxide (SO <sub>2</sub> ) at zero percent excess air
	40 CFR Part 63 Subpart CC	See A.I.2.a
	40 CFR Part 63 Subpart UUU	See A.I.2.e and f

**2. Additional Terms and Conditions**

- 2.a The permittee shall comply with the equipment leak standards as outlined under A.I.2.c through A.I.2.e in Part II of this permit.
- 2.b The emission limitation established by this rule is equivalent to or less stringent than the limit established by 40 CFR Part 60 Subpart J.
- 2.c This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).

- 2.d** The permittee shall re-route all NSPS sulfur recovery plant sulfur pit emissions such that they are treated, monitored, and included as part of the sulfur recovery plant's emissions subject to the NSPS Subpart J limit for SO<sub>2</sub>, 40 CFR 60.104(a)(2), by no later than the first turnaround of the Claus train that occurs after July 18, 2001.
- [40 CFR 63.1563(b)]
- 2.e** The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63 Subpart UUU by no later than April 11, 2005.
- [40 CFR 63.1568(a)(1)]
- 2.f** The permittee shall comply with the applicable emission limitations specified under 40 CFR 63.1568(a)(1).

## II. Operational Restrictions

1. The permittee shall continue to implement and maintain the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The comprehensive plan shall include, but not be limited to, the following:
  - a. an identification of events, within the SRU or Tail Gas Treater or upstream/downstream units/operations, likely to cause malfunctions and/or non-routine shutdowns or bypasses of the SRU or Tail Gas Treater, and a description of the steps taken to prevent or minimize the likelihood of such events from occurring;
  - b. a description of steps or procedures reasonably available to be taken in order to prevent or minimize flaring of feeds to the SRUs during any period when one or more SRUs is shutdown or being bypassed, along with an indication of limitations on the availability of such steps;
  - c. a description of steps to be taken to minimize excess emissions from the SRUs during routine or scheduled startups and shutdowns of the SRUs and Tail Gas Treater;
  - d. a comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
  - e. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,

- f. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

[40 CFR 63.156(a)(3)]

2. The permittee shall operate at all times according to the procedures of the operating plan prepared under A.VI.2 of this permit.

[40 CFR 63.1569(a)]

3. The permittee shall comply with the work practice standards for control equipment bypass lines under 40 CFR 63.1569(a).

[40 CFR 63.1570(c)]

4. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).

[40 CFR 63.1570(e)]

5. The permittee shall operate in accordance with the startup, shutdown, and malfunction plan that was developed under A.VI.5.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO<sub>2</sub> emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.
  - a. The span values for this monitor are 500 ppm SO<sub>2</sub> and 25 percent O<sub>2</sub>.
  - b. The performance evaluations for this SO<sub>2</sub> monitor under 40 CFR 60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.
2. 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.
3. 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 CD prior to resetting the calibration, if performed, or record the amount of adjustment.
4. 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.

5. 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.
6. 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.
7. 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.

8. 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.
9. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

- [40 CFR 63.1568(b)(1)]
10. The permittee shall install, operate, and maintain a continuous monitoring system according to the requirements of 40 CFR 63.1572 and Table 31 of 40 CFR Part 63 Subpart UUU.
11. The permittee shall demonstrate continuous compliance with the work practice standard of A.II.2 by maintaining records to document conformance with the procedures in the operation, maintenance, and monitoring plan prepared under A.VI.2.
- [40 CFR 63.1570(c)]
12. During the period between April 11, 2005 and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, the permittee shall maintain a log detailing the operation and maintenance of the process and emissions control equipment as required by 40 CFR 63.1570(c).
- [40 CFR 63.1576]
13. The permittee shall keep the following records.
- a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart UUU, including all documentation supporting any initial notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
  - b. The records in 40 CFR 63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction.
  - c. Records of performance tests, performance evaluations, and opacity and visible emission observations as required by 40 CFR 63.10(b)(2)(viii).
  - d. For each continuous emission monitoring system or continuous opacity monitoring system, the permittee shall keep the records required below.
    - i. Records described in 40 CFR 63.10(b)(2)(vi) through (ix).
    - ii. Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).
    - iii. Previous (i.e., superceded) versions of the performance evaluation as required in 40 CFR 63.8(d)(3).
    - iv. Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in 40 CFR 63.8(f)(6)(i).
    - v. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

- e. Records required by Tables 34, 35, and 39 of 40 CFR Part 63 Subpart UUU.
  - f. A current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. Records to show compliance with the procedures of the operation, maintenance and monitoring plan shall be maintained. A log shall be maintained detailing the operation and maintenance of the process and emissions control equipment.
  - g. Changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.
14. The permittee shall maintain these records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1) and be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

The permittee shall maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The records may be kept offsite for the remaining 3 years.

15. Except as otherwise provided above, all records required under Section A.III of this permit shall be maintained in accordance with the Monitoring and Related Recordkeeping Requirements of Part *I* - General Terms and Conditions.

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

1. The permittee shall submit an 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 concentration greater than 250 ppm by volume (dry basis) of sulfur dioxide (SO<sub>2</sub>) at zero percent 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 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.
2. 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.
  3. 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 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.
    - d. Assessment of CEMS data accuracy and date of assessment as determined by a RATA, RAA, or CGA described in Section 5 including the RA for the RATA, the A for the RAA or CGA, the 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.
    - e. Results from USEPA performance audit samples described in Section 5 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.

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

[40 CFR 63.1574(a)]

4. Except as allowed for in (a) through (c), the permittee shall submit all of the notifications in 40 CFR 63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6) and 63.9(b) through (h) that apply by the dates as specified.

- a. The notification of intention to construct or reconstruct shall be submitted according to 40 CFR 63.9(B)(5).
  - b. The permittee shall submit the notification of intent to conduct a performance test required in 40 CFR 63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).
  - c. If required to conduct a performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, the permittee shall submit a notification of compliance status according to 40 CFR 63.9(h)(2)(ii). The permittee can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. The permittee shall provide a duplicate notification to the U.S. EPA Region V Administrator. If the required information has been submitted previously, a separate notification of compliance status does not need to be provided. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.
    - i. For each initial compliance demonstration that does not include a performance test, the permittee shall submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.
    - ii. For each initial compliance demonstration that includes a performance test, the permittee shall submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for the affected source in 40 CFR 63.1573.
  - d. The initial compliance certification report shall include the information contained in Table 42 of 40 CFR Part 63 subpart UUU.
5. The permittee shall submit semiannual compliance reports containing the following information.
- [40 CFR 63.1575( d)]
- a. For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is not used to comply with the emission limitation or work practice standard in 40 CFR Part 63 Subpart UUU, the compliance report shall contain the information in 5.k and 5.a.i through iii below.
    - i. The total operating time of each affected source 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).

[40 CFR 63.1575(e)

- b. For each deviation from an emission limitation occurring at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is used to comply with the emission limitation under 40 CFR Part 63 Subpart UUU, the permittee shall include the information in paragraphs 5.a.i through iii and 5.b.i through xiii below.
  - i. The date and time that each malfunction started and stopped.
  - ii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.
  - iii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in 40 CFR 63.8.
  - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a startup, shutdown, or malfunction or during another period.
  - v. A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulations for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.
  - vi. A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  - vii. A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time as specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system and or continuous emission monitoring system as a percent of the total source operating time during that reporting period.
  - viii. A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emissions monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions,

non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

- ix. An identification of each HAP that was monitored at the affected source.
- x. A brief description of the process.
- xi. The monitoring equipment manufacturer(s) and model number(s).
- xii. The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.
- xiii. A description of any change in the continuous emission monitoring system or continuous opacity monitoring system.

[40 CFR 63.1575( c)(4)]

- c. If there are no deviations from any emission limitation that applies and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted.

[40 CFR 63.1575( f)(1)]

- d. A copy of any performance test done during the reporting period. The report may be included in the next semiannual report. The copy shall include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee shall submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

[40 CFR 63.1575( f)(2)]

- e. Any requested change in the applicability of an emission standard (e.g., to change cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. The permittee shall include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

[40 CFR 63.1575( g)]

- f. The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

[40 CFR 63.1575( h)]

- g. The reporting requirements in paragraphs i. and ii. below apply to startups, shutdowns, and malfunctions:
  - i. When actions taken to respond are consistent with the plan, The permittee is not required to report these events in the semiannual compliance report and the reporting requirements in 40 CFR 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.
  - ii. When actions taken to respond are not consistent with the plan, the permittee shall report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 CFR 63.6(e)(3)(iv) and 63.10(d)(5) do not apply.
  
- h. [40 CFR 63.1575(i)]  
If the Toledo Division of Environmental Services has approved a period of planned maintenance for the catalytic cracking unit according to the requirements of 40 CFR 63.1575(j), the permittee shall include the following information in the compliance report.
  - i. In the compliance report due after the 6-month periods before maintenance is to begin, the permittee shall include a full copy of the written request to the Toledo Division of Environmental Services and written approval received from the Toledo Division of Environmental Services.
  - ii. In the compliance report due after the routine planned maintenance is complete, the permittee shall include a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, and the total number of hours during those 6 months that the control device did not meet the emission limitations and monitoring requirements as a result of the approved routine planned maintenance.

[40 CFR 63.1575(b)(1,2)]

- i. The first compliance report shall cover the period beginning on April 11 to June 30, 2005 and shall be postmarked or delivered by July 31, 2005.

[40 CFR 63.1575(b)(3,4)]

- j. Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and the compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end if the semiannual reporting period.

[40 CFR 63.1575(c)(1-3)]

- k. The compliance report shall contain the information required in paragraphs (i) through iii. below.

- i. Company name and address.
- ii. Statement by a responsible official, with the official's name, title, and signature, certifying the accuracy of the content of the report.
- iii. Date of report and beginning and ending dates of the reporting period.

## 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  
  
250 ppm by volume (dry basis) of sulfur dioxide (SO<sub>2</sub>) at zero percent excess air  
  
Applicable Compliance Method  
  
If required, the procedures outlined under 40 CFR 60.106(f) shall be used to demonstrate compliance.
2. Each CEMS must 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 must 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 (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).
  - 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 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. The permittee shall demonstrate initial compliance with the emission limitation under A.I.2.f according to Table 3 of 40 CFR Part 63 Subpart UUU.
4. The permittee shall demonstrate initial compliance with the work practice standard under A.VI.4 by submitting the operation, maintenance and monitoring plan as part of the notification of compliance status and shall demonstrate continuous compliance by complying with the procedures in the operation, maintenance, and monitoring plan.

5. The permittee shall demonstrate continuous compliance with the emission limitations in Table 29 of 40 CFR Part 63 Subpart UUU according to the methods specified in Tables 34 and 35 of 40 CFR Part 63 Subpart UUU.
6. The permittee shall demonstrate initial compliance and continuous compliance with A.II.3 according to 40 CFR 63.1569(b) and (c).

## 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 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 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.
2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.
3. Nothing in this permit related to the PMMAP shall be construed to relieve the permittee from its obligation to comply with the requirements of OAC rule 3745-15-06(A) and (B), and OAC rule 3750-25-25 (related to toxic release reporting). Nothing in the permit related to the PMMAP shall modify or limit the Director's authority under OAC rule 3745-15-06(D) to require a preventive maintenance and malfunction abatement plan which is acceptable to the Director if, as the rule states, in the judgement of the Director, such a plan is needed for any emissions units at this facility.

[40 CFR 63.1568(a)(3) and 63.1574(f)]

4. The permittee shall prepare an operation, maintenance, and monitoring plan for each affected source, control system, and continuous monitoring system.
  - a. The plan shall be submitted to the Toledo Division of Environmental Services for review and approval along with the notification of compliance status.
  - b. Each plan shall include, at a minimum, the information specified in paragraphs i. through v. below.
    - i. Process and control device parameters to be monitored for each affected source, along with established operating limits.
    - ii. Procedures for monitoring emissions and process and control device operating parameters for each affected source.

- iii. Monitoring schedule, including when an affected source (e.g., during coke burn-off, regeneration process) will and will not be monitored.
    - iv. Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system used to meet an emission limit under A.I.2.f. This plan shall include procedures that will be used for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.
    - v. Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.
  5. The permittee shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). The SSMP must require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator of USEPA will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 40 CFR 63.6(e) and the contents of the SSMP.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P009 - Sulfur Recovery Unit No. 1 with Tail Gas Treater , Thermal Oxidizer, and sulfur pit		

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P037 - Sulfur Recovery Unit Nos. 2 and 3 (105 long ton/day each), sulfur pits, and common tail gas treater, thermal oxidizer and flare	OAC rule 3745-31-02(A)(2)  OAC rule 3745-31-05(A)(3) (PTI 04-1046 as modified on August 5, 1998)	See A.I.2.e and A.I.2.f  2.7 lbs/hr CO and 8.07 tons/yr CO as a rolling, 12-month summation; 4.4 lbs/hr NO <sub>x</sub> and 12.76 tons/yr NO <sub>x</sub> as a rolling, 12-month summation; 0.6 lb/hr particulate emissions (PE) and 1.74 tons/yr particulate emissions as a rolling, 12-month summation; 172 tons/yr SO <sub>2</sub> as a rolling, 12-month summation; 6.2 tons/yr VOC as a rolling, 12-month summation (from fugitive equipment leaks) See A.I.2.c
	OAC 3745-18-54(W)(7)	See A.I.2.b
	OAC 3745-21-09(T)	See Part II A.II.19 through 26
	40 CFR Part 60 Subpart J	250 ppm by volume (dry basis) of sulfur dioxide (SO <sub>2</sub> ) at zero percent excess air
	40 CFR Part 63 Subpart CC	See A.I.2.a
	40 CFR Part 60 Subpart GGG	See A.I.2.d
	40 CFR Part 63 Subpart UUU	

## 2. Additional Terms and Conditions

- 2.a The permittee shall comply with the equipment leak standards as outlined under A.I.2.c through A.I.2.e in Part II of this permit.
- 2.b The emission limitation established by this rule is equivalent to or less stringent than the limit established by 40 CFR Part 60 Subpart J.
- 2.c The requirements of this rule also include compliance with 40 CFR 60 Subpart J.
- 2.d As specified under 40 CFR 63.640(p), equipment leaks that are also subject to the provisions of 40 CFR 60 and 61 are required to comply only with the requirements of 40 CFR 63 Subpart CC.
- 2.e This permit to install incorporates the emission limits and schedules set out in paragraphs 14-18 and 21 of the Consent Decree (United States of America, et al., v. BP Exploration & Oil Co., et al., Civil Action No. 2:96CV095 RL).
- 2.f The permittee shall re-route all NSPS sulfur recovery plant sulfur pit emissions such that they are treated, monitored, and included as part of the sulfur recovery plant's emissions subject to the NSPS Subpart J limit for SO<sub>2</sub>, 40 CFR 60.104(a)(2), by no later than the first turnaround of the Claus train that occurs after July 18, 2001.
- 2.g The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63 Subpart UUU by no later than April 11, 2005.
- [40 CFR 63.1568(a)(1)]
- 2.h The permittee shall comply with the applicable emission limitations specified under 40 CFR 63.1568(a)(1).

## II. Operational Restrictions

- 1. A pilot flame shall be maintained at all times in the flare's pilot light burner.
- 2. The permittee shall continue to implement and maintain the Preventive Maintenance and Malfunction Abatement Plan (PMMAP) for this emissions unit. The plan may be revised and resubmitted in the future subject to Ohio EPA review and comment. The comprehensive plan shall include, but not be limited to, the following:
  - a. an identification of events, within the SRU or Tail Gas Treater or upstream/downstream units/operations, likely to cause malfunctions and/or non-routine shutdowns or bypasses of the SRUs or Tail Gas Treater, and a description of the steps taken to prevent or minimize the likelihood of such events from occurring;

- b. a description of steps or procedures reasonably available to be taken in order to prevent or minimize flaring of feeds to the SRUs during any period when one or more SRUs is shutdown or being bypassed, along with an indication of limitations on the availability of such steps;
- c. a description of steps to be taken to minimize excess emissions from the SRUs during routine or scheduled startups and shutdowns of the SRUs and Tail Gas Treater;
- d. a comprehensive preventive maintenance program, including a description of the items or conditions that will be inspected, the frequency of these inspections or repairs, and an identification of the types and quantities of replacement parts which will be maintained in inventory for quick replacement;
- e. an identification of the emissions unit and the operating outlet variables of the air pollution control equipment that will be monitored in order to detect a malfunction or failure, the normal operating range of these variables, and a description of the monitoring or surveillance procedures and of the method of informing operating personnel of any malfunction, including alarm systems, lights and/or other indicators; and,
- f. a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with any applicable law or permit limit as expeditiously as practicable.

[40 CFR 63.156(a)(3)]

3. The permittee shall operate at all times according to the procedures of the operating plan prepared under A.VI.2 of this permit.

[40 CFR 63.1569(a)]

4. The permittee shall comply with the work practice standards for control equipment bypass lines under 40 CFR 63.1569(a).

[40 CFR 63.1570(c)]

5. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).

[40 CFR 63.1570(e)]

6. The permittee shall operate in accordance with the startup, shutdown, and malfunction plan that was developed under A.VI.5.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO<sub>2</sub> emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.
  - a. The span values for this monitor are 500 ppm SO<sub>2</sub> and 25 percent O<sub>2</sub>.

- b. The performance evaluations for this SO<sub>2</sub> monitor under 40 CFR 60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations.
2. 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.
3. 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 CD prior to resetting the calibration, if performed, or record the amount of adjustment.
4. 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.
5. 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.
6. 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.
7. 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.

- 8. 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.
- 9. The permittee shall monitor and record the hourly and thermal oxidizer monthly average firing rate in terms of standard cubic feet per hour and the daily. From this data, the permittee shall calculate and record the monthly and rolling 12-month total CO, NO<sub>x</sub> and particulate emissions in accordance with Section A.V.
- 10. The permittee shall monitor and record the monthly average stack oxygen content, fuel gas rate, and tail gas treater vent gas rate to the thermal oxidizer, and determine the monthly total gas flow. In addition, the permittee shall calculate and record the monthly average SO<sub>2</sub> concentration in the SRU stack from the data recorded by the continuous emission monitor. From these data, the permittee shall calculate and record the monthly total SO<sub>2</sub> emissions for that month and the 12-month, rolling summation of the monthly emissions in accordance with the procedures specified in A.V.
- 11. Emissions occurring during any malfunction, bypassing, startup or shutdown period shall be quantified and recorded.
- 12. For purposes of these monitoring and recordkeeping requirements, average daily and monthly gas flow rates shall be determined from data provided by continuous gas flow monitors, except that, in the event of a monitor malfunction, flow rate may be estimated based on historical data corresponding to the production rate of the emissions unit for the period of monitor malfunction. The monitor shall be repaired as soon as possible. Average fuel gas heat content shall be determined through analysis of grab samples of the fuel gas collected once per day where the limit of concern is expressed as an hourly number and no less than once per week where the limit is expressed as a 12-month, rolling total.
- 13. The permittee shall properly install, operate and maintain a device to continuously monitor the presence of the flare pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

For each day the emissions unit is in operation, the permittee shall record all periods during which there was no flare pilot flame or the monitoring equipment was not operating.

14. The permittee shall maintain records to verify that the Preventive Maintenance and Malfunction Abatement Plan is being implemented and the content of the of the PMMAP has been met.

[40 CFR 63.1568(b)(1)]

15. The permittee shall install, operate, and maintain a continuous monitoring system according to the requirements of 40 CFR 63.1572 and Table 31 of 40 CFR Part 63 Subpart UUU.

16. The permittee shall demonstrate continuous compliance with the work practice standard of A.II.2 by maintaining records to document conformance with the procedures in the operation, maintenance, and monitoring plan prepared under A.VI.2.

[40 CFR 63.1570(c)]

17. During the period between April 11, 2005 and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, the permittee shall maintain a log detailing the operation and maintenance of the process and emissions control equipment as required by 40 CFR 63.1570(c).

[40 CFR 63.1576]

18. The permittee shall keep the following records.
  - a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart UUU, including all documentation supporting any initial notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
  - b. The records in 40 CFR 63.6(e)(1)(iii) through (v) related to startup, shutdown, and malfunction.
  - c. Records of performance tests, performance evaluations, and opacity and visible emission observations as required by 40 CFR 63.10(b)(2)(viii).
  - d. For each continuous emission monitoring system or continuous opacity monitoring system, the permittee shall keep the records required below.
    - i. Records described in 40 CFR 63.10(b)(2)(vi) through (ix).
    - ii. Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).
    - iii. Previous (i.e., superceded) versions of the performance evaluation as required in 40 CFR 63.8(d)(3).

- iv. Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in 40 CFR 63.8(f)(6)(i).
  - v. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- e. Records required by Tables 34, 35, and 39 of 40 CFR Part 63 Subpart UUU.
- f. A current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. Records to show compliance with the procedures of the operation, maintenance and monitoring plan shall be maintained. A log shall be maintained detailing the operation and maintenance of the process and emissions control equipment.
- g. Changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.
19. The permittee shall maintain these records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1) and be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.
- The permittee shall maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The records may be kept offsite for the remaining 3 years.
20. Except as otherwise provided above, all records required under Section A.III of this permit shall be maintained in accordance with the Monitoring and Related Recordkeeping Requirements of Part I - General Terms and Conditions.

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

1. The permittee shall submit an 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 concentration greater than 250 ppm by volume (dry basis) of sulfur dioxide (SO<sub>2</sub>) at zero percent 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 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.
  2. 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.
  3. 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 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.
    - d. Assessment of CEMS data accuracy and date of assessment as determined by a RATA, RAA, or CGA described in Section 5 including the RA for the RATA, the A for the RAA or CGA, the 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.
    - e. Results from USEPA performance audit samples described in Section 5 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.

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

- 4. The reports required under this section shall be submitted to the Toledo Division of Environmental Services quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.
- 5. The permittee shall submit deviation (excursion) reports, that identify all periods during which the pilot flame was not present. The reports shall include the date, time, and duration of each time period.

[40 CFR 63.1574(a)]

- 6. Except as allowed for in (a) through (c), the permittee shall submit all of the notifications in 40 CFR 63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6) and 63.9(b) through (h) that apply by the dates as specified.
  - a. The notification of intention to construct or reconstruct shall be submitted according to 40 CFR 63.9(B)(5).
  - b. The permittee shall submit the notification of intent to conduct a performance test required in 40 CFR 63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).
  - c. If required to conduct a performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, the permittee shall submit a notification of compliance status according to 40 CFR 63.9(h)(2)(ii). The permittee can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. The permittee shall provide a duplicate notification to the U.S. EPA Region V Administrator. If the required information has been submitted previously, a separate notification of compliance status does not need to be provided. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.
    - i. For each initial compliance demonstration that does not include a performance test, the permittee shall submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.
    - ii. For each initial compliance demonstration that includes a performance test, the permittee shall submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for the affected source in 40 CFR 63.1573.

- d. The initial compliance certification report shall include the information contained in Table 42 of 40 CFR Part 63 subpart UUU.
7. The permittee shall submit semiannual compliance reports containing the following information.
- [40 CFR 63.1575( d)]
- a. For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is not used to comply with the emission limitation or work practice standard in 40 CFR Part 63 Subpart UUU, the compliance report shall contain the information in 5.k and 5.a.i through iii below.
    - i. The total operating time of each affected source 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).
  - b. [40 CFR 63.1575(e)] For each deviation from an emission limitation occurring at an affected source where a continuous opacity monitoring system or a continuous emission monitoring system is used to comply with the emission limitation under 40 CFR Part 63 Subpart UUU, the permittee shall include the information in paragraphs 5.a.i through iii and 5.b.i through xiii below.
    - i. The date and time that each malfunction started and stopped.
    - ii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.
    - iii. The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in 40 CFR 63.8.
    - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a startup, shutdown, or malfunction or during another period.
    - v. A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulations for other types of emission limitations), and the total

duration as a percent of the total source operating time during that reporting period.

- vi. A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  - vii. A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time as specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system and or continuous emission monitoring system as a percent of the total source operating time during that reporting period.
  - viii. A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emissions monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
  - ix. An identification of each HAP that was monitored at the affected source.
  - x. A brief description of the process.
  - xi. The monitoring equipment manufacturer(s) and model number(s).
  - xii. The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.
  - xiii. A description of any change in the continuous emission monitoring system or continuous opacity monitoring system.
- [40 CFR 63.1575( c)(4)]
- c. If there are no deviations from any emission limitation that applies and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted.
- [40 CFR 63.1575( f)(1)]
- d. A copy of any performance test done during the reporting period. The report may be included in the next semiannual report. The copy shall include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, the permittee shall submit

the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

[40 CFR 63.1575( f)(2)]

- e. Any requested change in the applicability of an emission standard (e.g., to change cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in the periodic report. The permittee shall include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

[40 CFR 63.1575( g)]

- f. The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

[40 CFR 63.1575( h)]

- g. The reporting requirements in paragraphs i. and ii. below apply to startups, shutdowns, and malfunctions:
  - i. When actions taken to respond are consistent with the plan, The permittee is not required to report these events in the semiannual compliance report and the reporting requirements in 40 CFR 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.
  - ii. When actions taken to respond are not consistent with the plan, the permittee shall report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 40 CFR 63.6(e)(3)(iv) and 63.10(d)(5) do not apply.

[40 CFR 63.1575(i)]

- h. If the Toledo Division of Environmental Services has approved a period of planned maintenance for the catalytic cracking unit according to the requirements of 40 CFR 63.1575(j), the permittee shall include the following information in the compliance report.
  - i. In the compliance report due after the 6-month periods before maintenance is to begin, the permittee shall include a full copy of the written request to the Toledo Division of Environmental Services and written approval received from the Toledo Division of Environmental Services.
  - ii. In the compliance report due after the routine planned maintenance is complete, the permittee shall include a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, and the

total number of hours during those 6 months that the control device did not meet the emission limitations and monitoring requirements as a result of the approved routine planned maintenance.

[40 CFR 63.1575(b)(1,2)]

- i. The first compliance report shall cover the period beginning on April 11 to June 30, 2005 and shall be postmarked or delivered by July 31, 2005.

[40 CFR 63.1575(b)(3,4)]

- j. Each subsequent compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and the compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

[40 CFR 63.1575(c)(1-3)]

- k. The compliance report shall contain the information required in paragraphs (i) through iii. below.
  - i. Company name and address.
  - ii. Statement by a responsible official, with the official's name, title, and signature, certifying the accuracy of the content of the report.
  - iii. Date of report and beginning and ending dates of the reporting period.

## 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:

2.7 lbs/hr CO

Applicable Compliance Method:

Multiply the AP-42 emission factor (Table 1.4-1 dated July 1998) of 84 lb/MMSCF of fuel gas burned corrected for heating value by the actual fuel gas burned in MMSCF/hr (average monthly fuel gas burned is acceptable). If required, Methods 1 through 4 and Method 10 shall be used to demonstrate compliance. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.

- b. Emission Limitation:

8.07 tons/yr CO as a rolling 12-month summation

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PTI Application: **04-01290**  
**Issued: 7/25/2002**

Facility ID: **0448020007**  
Emissions Unit ID: P037

Applicable Compliance Method:

Multiply the lbs/hr CO as determined above by the number of hours operated per month to determine the monthly CO emissions. Add the monthly total to the total for the previous 11 months to determine the rolling, 12-month total CO emissions.

c. Emission Limitation:

4.4 lbs/hr NO<sub>x</sub>

Applicable Compliance Method:

Multiply the manufacturer's guaranteed low-NO<sub>x</sub> burner emission factor of 0.10 lb/MMBtu of fuel gas burned by the actual fuel gas burned in MMBtu/hr (average monthly fuel gas burned is acceptable) to determine the hourly CO emissions. If required, Methods 1 through 4 and Method 7E shall be used to demonstrate compliance. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitation:

12.76 tons/yr NO<sub>x</sub> as a rolling 12-month summation

Applicable Compliance Method:

Multiply the lbs/hr NO<sub>x</sub> as determined above by the number of hours operated per month to determine the monthly NO<sub>x</sub> emissions. Add the monthly total to the total for the previous 11 months to determine the rolling, 12-month total NO<sub>x</sub> emissions.

e. Emission Limitation:

0.6 lb/hr particulate emissions

Applicable Compliance Method:

Multiply the AP-42 emission factor (Table 1.4-1 dated July 1998) of 7.6 lb/MMSCF of fuel gas burned corrected for heating value by the actual fuel gas burned in MMSCF/hr (average monthly fuel gas burned is acceptable). If required, Methods 1 through 4 and Method 5 shall be used to demonstrate compliance. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.

f. Emission Limitation:

1.74 tons/yr particulate emissions as a rolling 12-month summation

Applicable Compliance Method:

Multiply the lbs/hr particulate emissions as determined above by the number of hours operated per month to determine the monthly particulate emissions. Add the monthly total to the total for the previous 11 months to determine the rolling, 12-month total particulate emissions.

g. Emission Limitation:

250 ppm by volume (dry basis) of sulfur dioxide (SO<sub>2</sub>) at zero percent excess air

Applicable Compliance Method

The monitoring and recordkeeping requirements of A.III shall be used to demonstrate compliance. If required, the procedures outlined under 40 CFR 60.106(f) shall be used to demonstrate compliance.

h. Emission Limitation:

172 tons/yr SO<sub>2</sub> as a rolling, 12-month summation;

Applicable Compliance Method:

Multiply the monthly average SO<sub>2</sub> concentration from the CEM by the monthly total gas flow to determine the monthly total SO<sub>2</sub> emissions.

i. Emission Limitation:

6.2 tons/yr VOC as a rolling, 12-month summation (from fugitive equipment leaks)

Applicable Compliance Method:

Compliance shall be determined by multiplying the number of components determined to be leaking under Part II Section A.III of this permit 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.

2. Each CEMS must 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 must 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 (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).
  - 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 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. The permittee shall demonstrate initial compliance with the emission limitation under A.I.2.f according to Table 3 of 40 CFR Part 63 Subpart UUU.
  4. The permittee shall demonstrate initial compliance with the work practice standard under A.VI.4 by submitting the operation, maintenance and monitoring plan as part of the notification of compliance status and shall demonstrate continuous compliance by complying with the procedures in the operation, maintenance, and monitoring plan.
  5. The permittee shall demonstrate continuous compliance with the emission limitations in Table 29 of 40 CFR Part 63 Subpart UUU according to the methods specified in Tables 34 and 35 of 40 CFR Part 63 Subpart UUU.
  6. The permittee shall demonstrate initial compliance and continuous compliance with A.II.3 according to 40 CFR 63.1569(b) and (c).

## 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 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 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.
2. The terms and conditions of this PTI shall supersede the terms and conditions for this emissions unit established by PTI application number 04-1046 modified on August 5, 1998.

3. Nothing in this permit related to the PMMAP shall be construed to relieve the permittee from its obligation to comply with the requirements of OAC rule 3745-15-06(A) and (B), and OAC rule 3750-25-25 (related to toxic release reporting). Nothing in the permit related to the PMMAP shall modify or limit the Director's authority under OAC rule 3745-15-06(D) to require a preventive maintenance and malfunction abatement plan which is acceptable to the Director if, as the rule states, in the judgement of the Director, such a plan is needed for any emissions units at this facility.
  
- [40 CFR 63.1568(a)(3) and 63.1574(f)]
4. The permittee shall prepare an operation, maintenance, and monitoring plan for each affected source, control system, and continuous monitoring system.
  - a. The plan shall be submitted to the Toledo Division of Environmental Services for review and approval along with the notification of compliance status.
  - b. Each plan shall include, at a minimum, the information specified in paragraphs i. through v. below.
    - i. Process and control device parameters to be monitored for each affected source, along with established operating limits.
    - ii. Procedures for monitoring emissions and process and control device operating parameters for each affected source.
    - iii. Monitoring schedule, including when an affected source (e.g., during coke burn-off, regeneration process) will and will not be monitored.
    - iv. Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system used to meet an emission limit under A.I.2.f. This plan shall include procedures that will be used for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.
    - v. Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.
  
5. The permittee shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3). The SSMP must require that good air pollution control practices are used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator of USEPA will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 40 CFR 63.6(e) and the contents of the SSMP.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P037 - Sulfur Recovery Unit Nos. 2 and 3 (105 long ton/day each), sulfur pits, and common tail gas treater, thermal oxidizer and flare		

**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