Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

3/19/2012

Certified Mail

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

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

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0448020007
Permit Number: P0108887
Permit Type: OAC Chapter 3745-31 Modification
County: Lucas

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted.Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now.If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

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

Cc: U.S. EPA Region 5 *-Via E-Mail Notification*
TDES; Michigan; Indiana; Canada

Permit Strategy Write-Up

1. Check all that apply:

   Synthetic Minor Determination

   Netting Determination

2. Source Description:
   BP-Husky Refining LLC (BPH) Toledo Refinery is proposing to replace the existing refinery fuel gas fired FCCU Preheater furnace (B018) with four (4) new shell and tube heat exchangers in the FCCU unit (P007) which will heat the FCCU Feed using heat from the existing FCCU Slurry Reflux stream. BPH needed the Preheater furnace during startups and in certain other operating conditions. The existing Preheater furnace has a design capacity of 103 MMBtu/hr. The new heat exchangers have a total design heat transfer capacity of 31 MMBtu/hr which is greater than the annual average of 10 MMBtu/hr of actual Preheater usage.

   BPH states that this project will not affect the FCCU feed rates, refinery crude throughputs, crude type, Coker rates, or any upstream and downstream process units. It is expected to have a small increase of VOC fugitive emissions from equipment leaks from new piping component associated with the four new shell and tube heat exchangers. It will also slightly increase refinery steam usage and thus slightly increase the firing/emissions of the refinery boilers (B034/B035).

   The installation of the new piping components will trigger the NSPS Subpart GGGa – Standards for Equipment Leaks- applicability. The Chapter 31 modification of the PTI is needed to reflect the GGGa requirements.

3. Facility Emissions and Attainment Status:

PM10	25 TPY	Unclassifiable
SO2	40 TPY	Attainment
VOC	40 TPY	non-attainment
NOx	40 TPY	unclassifiable/attainment

4. Source Emissions:

Project Emissions Changes (tons per year)

Emissions Unit	**NOx**	**SO2**	**PM10/2.5**	**CO**	**VOC**	**H2SO4**	**HAPs**	**GHG (CO_2e)**
P007	na	na	na	na	2.5	na	na	na
B034/B035	2.72	10.78	0.25	14.80	0.73			16,121
B018	-37.73	-4.01	-0.26	-11.32	-0.74			-16,732
Total	-35.01	6.77	-0.01	3.48	2.49			-610
PSD/NSR Significance Levels	40	40	15	100	40	7		75,000
Above Significance Levels	No	No	No	No	No	No		No

5. Conclusion:
The net emission increase associated with this Permit to Install will not result in a significant net emissions increase, and is, therefore, not subject to PSD review.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
VOC	2.5

PUBLIC NOTICE
3/19/2012 Issuance of Draft Air Pollution Permit-To-Install

BP-Husky Refining LLC
4001 Cedar Point Road, P.O. Box 696
Oregon, OH 43697
Lucas County
FACILITY DESC.: Petroleum Refineries
PERMIT #: P0108887
PERMIT TYPE: OAC Chapter 3745-31 Modification
PERMIT DESC: Chapter 31 Modification to replace the existing refinery fuel gas-fired FCCU Preheater furnace (B018) with four (4) new shell and tube heat exchangers in the FCCU unit (P007)

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the permit # or: Peter Park, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604. Ph: (419)936-3015

Ohio | Environmental Protection Agency

DRAFT

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

Facility ID:	0448020007
Permit Number:	P0108887
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	3/19/2012
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

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

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Authorization

Facility ID: 0448020007
Facility Description: Toledo Refinery
Application Number(s): A0042809, A0043349
Permit Number: P0108887
Permit Description: Chapter 31 Modification to replace the existing refinery fuel gas-fired FCCU Preheater furnace (B018) with four (4) new shell and tube heat exchangers in the FCCU unit (P007)
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: $1,250.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 3/19/2012
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

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

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0108887
Permit Description: Chapter 31 Modification to replace the existing refinery fuel gas-fired FCCU Preheater furnace (B018) with four (4) new shell and tube heat exchangers in the FCCU unit (P007)

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

Emissions Unit ID:	**P007**
Company Equipment ID:	FCC & CO Boiler
Superseded Permit Number:	P0105902
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

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

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted (i.e., postmarked) to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

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

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

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

d) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission

limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Toledo Department of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

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

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as “permanently shut down” in Ohio EPA’s “Air Services” along with the date the emissions unit(s) was permanently

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

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

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions unit contained in this permit is subject to 40 CFR Part 60 Subpart GGGa, 40 CFR Part 63 Subpart CC, DDDDD and UUU: P007. The complete NSPS and MACT requirements, including the MACT General Provisions may be accessed via the internet from the electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA district or local air agency.

3. The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart DDDDD, in accordance with 40 CFR Parts 63.7480 through 63.7575 (including the Table(s) and Appendix(ices) referenced in Subpart DDDDD).

   The following emissions unit in this permit is subject to the aforementioned requirements: P007

C. Emissions Unit Terms and Conditions

1. P007, FCC & CO Boiler

Operations, Property and/or Equipment Description:

Fluidized Catalytic Cracking Unit (FCCU) consisting of an FCC Reactor, Catalyst Regenerator, Fractionator, Strippers and Absorbers with an average processing capacity of 55,000 barrels per day of fresh feed

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

(1) d)(9), d)(10), d)(11), e((9), and e)(10).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	See b)(2)c. through b)(2)f., b)(2)k., and b)(2)p. through t.
b.	OAC rule 3745-31-05(A)(3) (PTI 04-01330 issued August 28, 2003)	See b)(2) l.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, unless otherwise specified by the rule.
d.	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions per million Btu of actual heat input from fuel burned in the CO boiler See b)(2)h.
e.	OAC rule 3745-17-11(A)	91.7 pounds per hour particulate emissions See b)(2)b. and b)(2)j.
f.	OAC rule 3745-18-54(W)(6)	See b)(2)b. and b)(2)i.
g.	OAC rule 3745-18-54(W)(1)	See b)(2)i.
h.	OAC rule 3745-31-05(D) (PTI 04-01346 modified January 18, 2007)	See b)(2)m.
i.	40 CFR Part 63, Subpart DDDDD (63.7480 through 63.7575)	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	In accordance with 40 CFR 63.7485, this emissions unit is an process heater that is located at, or is part of, a major source of HAP subject to the emission limitations/control measures specified in this section.	Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)n.
j.	OAC rule 3745-21-09(T)	See b)(2)a.
k.	40 CFR Part 60, Subpart GGGa (60.590a through 60.593a) In accordance with 40 CFR 60.593a, this emissions unit is an affected facility in a refinery subject to the emission limitations/control mearsures specified in this section.	See b)(2)a. and b)(2)o.
l.	40 CFR Part 63, Subpart CC (63.640 through 63.656) In accordance with 40 CFR 63.640, this emissions unit is a petroleum refining process unit subject to the emission limitation/control measures specified in this section.	See b)(2)a.
m.	40 CFR Part 63 , Subpart UUU (63.1560 through 63.1579) In accordance with 40 CFR 63.1561, this emissions unit is part of a petroleum refinery that is located at a major source of HAP emissions subject to the emission limitations/control measures specified in this section.	See b)(2)g.
	40 CFR Part 63, Subpart A (63.1 through 63.16)	See b)(2)v.

(2) Additional Terms and Conditions

a. The permittee shall comply with all applicable equipment leak terms and conditions for: 40 CFR Part 63, Subpart CC which references 40 CFR Part 60, Subpart VV; and, OAC rule 3745-21-09(T). Equipment leaks that are subject to the provisions of both 40 CFR Part 60, Subpart GGGa and 40 CFR Part 63, Subpart CC are required to comply only with the provisions specified in 40 CFR Part 60, Subpart GGGa.

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

c. The permittee shall limit CO emissions from the FCCU to 500 parts per million by volume dry basis (ppmvd) as a 1-hour average. The CO limit shall not apply during periods of startup, shutdown or malfunction of the FCCU or the CO control equipment, if any, provided that during startup, shutdown or malfunction BP shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the USEPA and the Toledo Division of Environmental Services which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the emissions unit.

d. The permittee shall reduce total particulate emissions at the FCCU to 1 pound per 1,000 pounds of coke burned. The permittee shall achieve these reductions through installation of an electrostatic precipitator. The permittee shall meet this limit by no later than 6 months after the planned 2007 shutdown.

e. The permittee shall not burn in the CO Boiler any refinery fuel gas that has a volume-weighted, rolling, 3-hour average hydrogen sulfide (H_2S) concentration greater than 0.10 grain per dry standard cubic foot, except during periods of startup, shutdown or malfunction of the refinery fuel gas amine systems provided that BP shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

f. The CO Boiler (not the FCCU) shall be considered an affected facility for purposes of 40 CFR Part 60, Subpart J, and shall comply with all requirements of 40 CFR Part 60, Subparts A and J as those subparts apply to fuel gas combustion devices. These requirements apply to the CO Boiler at all times when burning refinery fuel gas.

g. The permittee shall comply with the requirements for existing sources in 40 CFR Part 63, Subpart UUU by no later than January 1, 2006 according to the extension of compliance under 40 CFR 63.1563(c).

h. This emission limitation applies to the CO Boiler.

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

j. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)d.

k. SO_2 emissions from the FCCU shall not exceed 260 ppmvd at 0% oxygen as a rolling 7-day average or 160 ppmvd at 0% oxygen as a 365-day rolling average.

l. Ammonia emissions shall not exceed 20 parts per million by volume dry basis or 41.61 tons per year.

The results of the permittee's ammonia slip analysis shall be submitted to the Toledo Division of Environmental Services. Based on the ammonia slip analysis, the permittee shall minimize ammonia slip while maintaining SNCR effectiveness in a manner consistent with good engineering practices. These emission limitations are the potential to emit based on vendor's design data, therefore, monitoring, recordkeeping and reporting are not required.

m. The permittee shall limit emissions of sulfur dioxide from the FCCU to 1,020 tons per rolling 12-month period to obtain a net decrease of 80 tons/yr $SO_2$for this PTI.

n. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

o. The Wet Gas Compressor shall be considered an affected facility for the purposes of 40 CFR Part 60 Subpart GGGa. The permittee shall comply with all the requirements of 40 CFR Part 60, Subpart GGGa as this subpart applies to compressors.

p. Final Long-Term NOx Limit: Beginning no later than December 1, 2009, BP-Husky shall comply with a long-term limit of 58.1 ppmvdNO_x at 0% O_2 on a 365-day rolling average basis. This long-term limit shall apply at all times when the FCCU is operating, including during periods of startup, shutdown, and malfunction. The limit also shall apply during periods of scheduled maintenance of equipment other than the FCCU.

q. Alternative Operating Scenario:

i. For no more than 20 days over a rolling two year (730-day) period, when the CO boiler is operating and the FCCU is down, the long-term limit shall not apply if BP-Husky retires NO_x allowance to account for NO_x emissions (in tons or portion thereof) that occur on any such days. BP-Husky must retire said NO_x allowances at a rate of not less than 1.5 to 1.

ii. A “NO_x Allowance” means an authorization or credit to emit a specified amount of NO_x that is allocated or issued under an emissions trading or

marketable permit program that has been established under the Clean Air Act.

iii. For all NO_x Allowances to be surrendered pursuant to Paragraph q.i., BP-Husky shall first submit a NO_x Allowance transfer request form to U.S. EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such NO_x Allowances to the U.S. EPA Enforcement Surrender Account. As part of submitting this transfer request, BP-Husky shall irrevocably authorize the transfer of these NO_x Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the NO_x Allowances being surrendered.

iv. Mitigation. To qualify for the alternate operating scenario, BP-Husky shall surrender all NO_x allowances that are required pursuant to this Paragraph by no later than March 15th of the year following the calendar year in which the long-term emissions limit is exceeded.

r. Final Short Term NO_x Limit: Beginning no later than December 1, 2009, and except as provided in Paragraph s. below, BP-Husky shall comply with a short-term limit of 93.4 ppmvdNO_x at 0% O_2 on a 7-day rolling average basis. This short-term limit shall apply at all times when the FCCU is operating except during periods of startup, shutdown, and malfunction.

s. Emissions During Periods of FCCU Shutdown and CO Boiler Operation: The short-term (7-day) emission limit established in r. above shall not apply during periods when the CO boiler is operating but the FCCU is shut down. During such periods, BP-Husky shall minimize NO_x emissions from the CO boiler to the extent practicable consistent with good air pollution control practices for minimizing emissions by continuing to treat the off gases in the selective non-catalytic reduction equipment installed pursuant to the Consent Decree. In addition, BP-Husky shall monitor NO_x emissions from the CO boiler using a continuous emissions monitor (CEM). The CEM shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. § 60.11, § 60.13, and Part 60 Appendix F. This CEM shall be used to demonstrate compliance with emission limits.

t. General Provisions for NO_x Limit: Determination of compliance with the limits established in p. and r. above shall be based on data generated after the limits go into effect. December 1, 2009 is the first day used in the 365-day rolling average subject to the 58.1 ppmvd emission limit with the first complete 365-day average being on November 30, 2010. December 1, 2009 is the first day used in the 7-day rolling average subject to the 93.4 ppmvd limit with the first complete 7-day average being on December 7, 2009.

u. The final NO_x limits for the Toledo FCCU established in this permit are effective beginning December 1, 2009.

v. The permittee is subject to the applicable requirements of 40 CFR Part 63, Subpart A (General Provisions), as set forth in Table 10 of Subpart DDDDD.

c) Operational Restrictions

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

(2) See 40 CFR Part 63, Subpart DDDDD (63.7480 through 63.7575)

(3) See 40 CFR Part 60, Subpart GGGa (60.590a through 60.593a)

(4) See 40 CFR Part 63, Subpart CC (63.640 through 63.656)

(5) See 40 CFR Part 63 , Subpart UUU (63.1560 through 63.1579)

(6) See 40 CFR Part 63, Subpart A (63.1 through 63.16)

d) Monitoring and/or Recordkeeping Requirements

(1) Continuous Opacity Monitoring Requirements.

a. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 51, Appendix P.

b. The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (1-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

c. Continuous Opacity Monitoring - Certified Systems Statement of Certification

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

(2) Continuous SO_2 Emissions Monitoring Requirements

a. The permittee shall operate and maintain existing equipment to continuously monitor and record SO_2 emissions from the FCCU in units of the applicable standards (ppmvd at 0% oxygen as a rolling 7-day average and ppmvd at 0% oxygen as a 365-day rolling average). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

(3) Continuous H_2S Monitoring and Record Keeping Requirements

a. The permittee shall calibrate, maintain and operate a continuous monitoring system for measurement of the H_2S content in the fuel gas before being burned in the CO Boiler. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

i. The H_2S monitoring device shall continuously monitor and record the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

ii. The span value for this instrument is 425 mg/dscm H_2S.

iii. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

iv. The performance evaluations for this H_2S monitor shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

(4) Common Monitoring and Record Keeping Requirements for SO_2 and H_2S continuous emissions monitoring systems

a. The permittee shall automatically check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts of the H_2S and SO_2 monitors at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in Appendix B of 40 CFR Part 60. The system shall allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.

b. Monitors that automatically adjust the data to the corrected calibration values (e.g., microprocessor control) shall be programmed to record the unadjusted concentration measured in the calibration drift (CD) prior to resetting the calibration, if performed, or record the amount of adjustment.

c. If either the zero (or low-level) or high-level CD result exceeds twice the applicable drift specification in Appendix B for five, consecutive, daily periods, the CEMS is out-of-control. If either the zero (or low-level) or high-level CD result exceeds four times the applicable drift specification in 40 CFR Part 60, Appendix B during any CD check, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary corrective action. Following corrective action, repeat the CD checks.

d. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required in 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: the continuous monitoring system for measuring

emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15- minute period.

e. One-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit.

f. The permittee shall implement a quality control program for the H_2S and SO_2 continuous emissions monitoring systems.. As a minimum, each quality control program shall include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:

i. calibration of CEMS;

ii. CD determination and adjustment of CEMS;

iii. preventive maintenance of CEMS (including spare parts inventory);

iv. data recording, calculations, and reporting;

v. accuracy audit procedures including sampling and analysis methods; and

vi. program of corrective action for malfunctioning CEMS.

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

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

(5) Continuous NO_x Emissions Monitoring Requirements

a. The permittee shall maintain a written quality assurance/quality control plan for the continuous NOx monitoring system, designed to ensure continuous valid and

representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

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

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

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

c. The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

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

d. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO_x monitoring system including, but not limited to:

i. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;

ii. emissions of NO_x in all units of the applicable standard(s) in the appropriate averaging period;

iii. results of quarterly cylinder gas audits;

iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

v. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

vi. hours of operation of the emissions unit, continuous NO_x monitoring system, and control equipment;

vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system;

viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system; as well as,

ix. the reason (if known) and the corrective actions taken (if any) for each such event in vii and viii.

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

(6) FCC/CO Boiler Monitoring and Record Keeping Requirements

a. For each day during which the permittee burns a fuel other than FCCU regenerator offgas, refinery fuel gas, or natural gas in the CO Boiler, the permittee shall maintain a record of the type and quantity of fuel burned.

b. The permittee shall measure and record hourly average CO concentrations from the FCCU. Process analyzers calibrated in accordance with manufacturer's recommendations may be used for this purpose.

c. The permittee shall maintain a record of the operating time of the FCCU, the CO Boiler, and a record of all periods when the emissions from the FCCU bypass the CO Boiler.

(7) Except as otherwise specified in this section, all records required underd) of this permit shall be maintained in accordance with the Monitoring and Related Record Keeping Requirements of Part I - General Terms and Conditions.

(8) The permittee shall maintain records of the monthly SO_2 emissions for P007 in units of tons SO_2 per month and tons SO_2 per rolling 12-month period. For each month, the permittee shall add the monthly total SO_2 emissions to the total SO_2 emissions for the previous 11 months to determine the rolling, 12-month summation of SO_2 emissions.

(9) The Permit-to-install application for this/these emissions unit(s), P007, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per

year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   $$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

   Toxic Contaminant: Ammonia covered under the worst-case toxic modeled.

   TLV (mg/m3): 17

   Maximum Hourly Emission Rate (lbs/hr): 9.5

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

   MAGLC (ug/m3): 400

The permittee, has demonstrated that emissions of Ammonia, from emissions unit(s) P007, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

(10) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

(11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

(12) See 40 CFR Part 63, Subpart DDDDD (63.7480 through 63.7575)

(13) See 40 CFR Part 60, Subpart GGGa (60.590a through 60.593a)

(14) See 40 CFR Part 63, Subpart CC (63.640 through 63.656)

(15) See 40 CFR Part 63 , Subpart UUU (63.1560 through 63.1579)

(16) See 40 CFR Part 63, Subpart A (63.1 through 63.16)

e) Reporting Requirements

(1) Continuous Opacity Monitoring Requirements

a. Pursuant to 40 CFR Part 51, Appendix P, Paragraph 4.0, the permittee shall submit reports on a quarterly basis to the Toledo Division of Environmental Services documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

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

c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time

during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

(2) Reporting Requirements for SO_2 Continuous Emissions Monitoring System

a. The permittee shall submit a SO_2 excess emissions and monitoring systems performance report and/or a summary report form (see paragraph (d) of 40 CFR 60.7) to the Toledo Division of Environmental Services quarterly, or except when the Administrator of USEPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit. All reports shall be postmarked by the 30th day following the end of each three-month period. Excess emissions are: each 7-day period in which emissions of SO_2 exceed 260 ppmvd at 0% oxygen as a rolling 7-day average; each 365-day period in which emissions of SO_2 exceed 160 ppmvd at 0% oxygen as a rolling 365-day average; and/or, each 12-month period in which SO_2 emissions exceed 1,020tons per rolling 12-month period. Written reports of excess emissions shall include the following information:

i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

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

iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b. The SO_2 excess emissions summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7 unless otherwise specified by the Administrator of USEPA. The data assessment report described under 40 CFR Part 60 Appendix F, Procedure 1 shall also be submitted with the summary report form.

i. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and

CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator of USEPA.

ii. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

(3) Reporting Requirements for H_2S Continuous Emissions Monitoring System

a. The permittee shall submit an H_2S 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_2S concentration greater than 0.10 grain per dry standard cubic foot of fuel gas burned. Written reports of excess emissions shall include the following information:

i. the magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period;

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

iii. the date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

iv. when no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b. The H_2S excess emissions summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7 unless otherwise specified by the Administrator of USEPA. One summary report form shall be submitted for each pollutant monitored at each affected facility.

i. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total

operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator of USEPA.

ii. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

(4) Common Reporting Requirements for Continuous H_2S and SO_2 Continuous Emissions Monitoring Systems

a. The permittee shall submit a quarterly report for each CEMS, the accuracy results from Section 6 and the CD assessment results from Section 4 of 40 CFR Part 60 Appendix F Procedure 1. Report the drift and accuracy information as a Data Assessment Report (DAR), and include one copy of this DAR for each quarterly audit with the report of emissions. As a minimum, the DAR shall contain the following information:

i. permittee name and address;

ii. identification and location of monitors in the CEMS;

iii. manufacturer and model number of each monitor in the CEMS;

iv. assessment of CEMS data accuracy and date of assessment as determined by a Relative Accuracy Test Audit (RATA), Relative Accuracy Audit (RAA), or Cylinder Gas Audit (CGA) described in Section 5 of 40 CFR Part 60 Appendix F Procedure 1 including the relative accuracy for the RATA, the Accuracy (A) for the RAA or CGA, the Reference Method (RM) results, the cylinder gases certified values, the CEMS responses, and the calculations results as defined in Section 6. If the accuracy audit results show the CEMS to be out-of-control, the CEMS operator shall report both the audit results showing the CEMS to be out-of-control and the results of the audit following corrective action showing the CEMS to be operating within specifications;

v. results from EPA performance audit samples described in Section 5 of 40 CFR Part 60 Appendix F Procedure 1 and the applicable RM's; and

vi. summary of all corrective actions taken when CEMS was determined out-of-control, as described in Sections 4 and 5 of 40 CFR Part 60 Appendix F Procedure 1.

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

(5) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_x and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total NO_x emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

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

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

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

[40 CFR 60.7]

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

(7) Reporting Requirements for Carbon Monoxide Emissions Monitoring System

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

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

ii. information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken;

iii. information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks); and

iv. if there are no deviations from the emission limitation and there was no monitor downtime, a statement that there were no deviations from the emission limitation and that the CO monitoring system was not inoperative, inactive, malfunctioning, out-of-control, repaired or adjusted.

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

(8) The permittee shall submit quarterly deviation/excursion reports that identify each period in which the SO_2 emissions from P007 exceeded 1,020 tons per rolling 12-month period.

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

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

(10) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01] and Option A, Engineering Guide #70

(11) See 40 CFR Part 63, Subpart DDDDD (63.7480 through 63.7575)

(12) See 40 CFR Part 60, Subpart GGGa (60.590a through 60.593a)

(13) See 40 CFR Part 63, Subpart CC (63.640 through 63.656)

(14) See 40 CFR Part 63 , Subpart UUU (63.1560 through 63.1579)

(15) See 40 CFR Part 63, Subpart A (63.1 through 63.16)

f) Testing Requirements

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

a. Emission Limitation:

20 percent opacity as a six-minute average

Applicable Compliance Method:

If required, Method 9 of 40 CFR Part 60 Appendix A shall be used to demonstrate compliance.

b. Emission Limitation:

0.020 pound particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

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

c. Emission Limitation:

0.10 grain H_2S per dry standard cubic foot of fuel gas burned as a volume-weighted, rolling 3-hour average

Applicable Compliance Method:

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

d. Emission Limitation:

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

Applicable Compliance Method:

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

e. Emission Limitation:

500 ppmvd CO as a one-hour average

Applicable Compliance Method:

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

f. Emission Limitation:

SO_2 emissions from the FCCU shall not exceed 260 ppmvd at 0% oxygen as a rolling 7-day average

Applicable Compliance Method:

Compliance shall be determined using data from the SO_2 continuous emissions monitoring system.

Startup, Shutdown, or Malfunction:

i. Emissions during periods of Startup, Shutdown, or Malfunction shall not be considered in determining compliance with the 7-day rolling average emissions limits, provided that during such periods BP implements good air pollution control practices for minimizing SO_2 emissions.

g. Emission Limitation:

SO_2 emissions from the FCCU shall not exceed 160 ppmvd at 0% oxygen as a rolling 365-day average.

Applicable Compliance Method:

Compliance shall be determined using data from the SO_2 continuous emissions monitoring system

h. Emission Limitation:

20 ppmvd ammonia

Applicable Compliance Method:

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

i. Emission Limitation:

41.61 tons per year ammonia

Applicable Compliance Method:

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

with the 20 ppmvd emission limitation constitutes compliance with the annual emission limitation.

j. Emission Limitation:

1,020 tons SO_2 per rolling 12-month period from the FCCU

Applicable Compliance Method:

Compliance shall be determined using data from the SO_2 continuous emissions monitoring system

k. Emission Limitation

58.1 ppmvdNO_x at 0% O_2 on a 365-day rolling average basis

Applicable Compliance Method:

Compliance shall be determined using data from the NO_x continuous emissions monitoring system

l. Emission Limitation

93.4 ppmvdNO_x at 0% O_2 on a 7-day rolling average basis

Applicable Compliance Method:

Compliance shall be determined using data from the NO_x continuous emissions monitoring system

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

a. Relative Accuracy Test Audit (RATA). The RATA shall be conducted at least once every four calendar quarters. Conduct the RATA as described for the RA test procedure in the applicable PS in Appendix B of 40 CFR Part 60 (e.g., PS 2 for SO_2 and NO_X). In addition, analyze the appropriate performance audit samples received from USEPA as described in the applicable sampling methods (e.g., Methods 6 and 7).

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

ii. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

b. Cylinder Gas Audit (CGA).

i. If applicable, a CGA may be conducted in three of four calendar quarters, but in no more than three quarters in succession.

c. Relative Accuracy Audit (RAA).

i. RAA may be conducted three of four calendar quarters, but in no more than three quarters in succession. To conduct a RAA, follow the procedure described in the applicable PS in Appendix B of 40 CFR Part 60 for the relative accuracy test, except that only three sets of measurement data are required. Analyses of USEPA performance audit samples are also required

(3) Ongoing compliance with the NO_x emission limitations contained in this permit shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

g) Miscellaneous Requirements

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