



11/8/2013

William Patrie  
 Marathon Petroleum Company LP - Canton Refinery  
 2408 Gambrinus Avenue SW  
 Canton, OH 44706

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 1576002006  
 Permit Number: P0112475  
 Permit Type: Administrative Modification  
 County: Stark

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

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

Environmental Review Appeals Commission  
 77 South High Street, 17th Floor  
 Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614)644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Canton; Pennsylvania; West Virginia



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

**Marathon Petroleum Company LP - Canton Refinery**

Facility ID:	1576002006
Permit Number:	P0112475
Permit Type:	Administrative Modification
Issued:	11/8/2013
Effective:	11/8/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Marathon Petroleum Company LP - Canton Refinery

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## Authorization

Facility ID: 1576002006  
 Facility Description: Petroleum Refinery  
 Application Number(s): M0002020  
 Permit Number: P0112475  
 Permit Description: Administrative Modification PTI to incorporate the netting prohibition requirements from the consent decree and remove equipment leak requirements that are no longer applicable. No physical or operational changes are occurring to P002.  
 Permit Type: Administrative Modification  
 Permit Fee: \$625.00  
 Issue Date: 11/8/2013  
 Effective Date: 11/8/2013

This document constitutes issuance to:

Marathon Petroleum Company LP - Canton Refinery  
 2408 Gambrinus Avenue SW  
 Canton, OH 44706

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

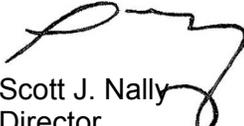
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
 420 Market Avenue  
 Canton, OH 44702-1544  
 (330)489-3385

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



**Final Permit-to-Install**  
Marathon Petroleum Company LP - Canton Refinery  
**Permit Number:** P0112475  
**Facility ID:** 1576002006  
**Effective Date:** 11/8/2013

## Authorization (continued)

Permit Number: P0112475

Permit Description: Administrative Modification PTI to incorporate the netting prohibition requirements from the consent decree and remove equipment leak requirements that are no longer applicable. No physical or operational changes are occurring to P002.

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

<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	FCC Unit
Superseded Permit Number:	P0105568
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Marathon Petroleum Company LP - Canton Refinery  
**Permit Number:** P0112475  
**Facility ID:** 1576002006  
**Effective Date:** 11/8/2013

## **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) 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 Canton City Health Department.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Canton City Health Department. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Canton City Health Department 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 Canton City Health Department 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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:
  - (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.
- c) The permittee shall submit progress reports to the Canton City Health Department 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 Canton City Health Department.
- 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 Canton City Health Department. 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, 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) not exempt from the requirement to obtain a Permit-to-Install.

**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 permittee 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 "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director 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.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- 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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



**13. Construction Compliance Certification**

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

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

**14. Public Disclosure**

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly 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) Unless other arrangements have been approved by the Director (the appropriate Ohio EPA District Office or local air agency), all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
2. The permittee is prohibited from using 82 tons of NO<sub>x</sub> emission reductions that resulted from the shutdown of Boilers No.1 and No. 11 required by the August 2001 Consent Decree, as amended, and by the November 2005 First Revised Consent Decree, as modified, (Civ. No. 4:01-CV-40119-PVG), for the purpose of netting reductions or emission offsets. No other restrictions on otherwise available netting credits exist as a result of the above-referenced decree.



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



**1. P002, FCC Unit**

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

Fluidized Catalytic Cracking Unit (FCCU) controlled with cyclones, third stage separator, and fourth stage separator.

- 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) None.
- 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(A)(3) [Best Available Technology (BAT)]	Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 71 pounds per hour (lb/hr), except as specified in b)(2)a.
b.	OAC rule 3745-31-05(D) [Limitations pursuant to the First Modification to the November 2005 First Revised Consent Decree (Global Settlement Agreement), United States v. Marathon Ashland Petroleum LLC, (Civil Case No. 4:01-cv-40119-PVG), as filed on March 31, 2008.]	NO <sub>x</sub> shall not exceed 72 parts per million by volume by on a dry basis (ppmvd) (0% O <sub>2</sub> ) as a rolling, 7- day average limit, except as specified in b)(2)a.  NO <sub>x</sub> shall not exceed 52 ppmvd (0% O <sub>2</sub> ) as a rolling, 365-day average limit, except as specified in b)(2)a.  Sulfur Dioxide (SO <sub>2</sub> ) emissions shall not exceed 90 ppmvd (0% O <sub>2</sub> ) as a rolling, 7- day average limit, except as specified in b)(2)a.  SO <sub>2</sub> shall not exceed 45 ppmvd (0% O <sub>2</sub> ) as a rolling, 365-day average limit, except as specified in b)(2)a.  SO <sub>2</sub> shall not exceed 100.0 tons/yr as a rolling, 12-month summation of emissions
c.	OAC rule 3745-31-05(D) [Limitations pursuant to Consent Decree (Global Settlement Agreement), United States v. Marathon Ashland Petroleum LLC,	Particulate emissions (PE) shall not exceed 0.9 lb per 1,000 lbs coke burned See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(Civil Action No. 4:01-CV-40119-PVG), which was lodged with the United States District Court for the Eastern District of Michigan on August 31, 2005]	
d.	OAC rule 3745-31-05(D) [Synthetic minor to avoid PSD rule requirements]	NO <sub>x</sub> shall not exceed 64.5 tons per year as a rolling, 12-month summation of emissions  PE shall not exceed 63.1 tons/yr as a rolling, 12-month summation of emissions  Carbon monoxide (CO) emissions shall not exceed 164.4 tons/yr as a rolling, 12-month summation of emissions
e.	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule or b)(2)c.
f.	OAC rule 3745-17-11(A)	The emissions limitation specified by this rule is less stringent than the standards established pursuant to 40 CFR Part 60, Subpart J.
g.	OAC rule 3745-18-82(E)(5)	The 0.62 lb SO <sub>2</sub> /1,000 lbs fresh feed emissions limitation specified by this rules is less stringent than the limits established pursuant to OAC rule 3745-31-05(D).  See b)(2)d.
h.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	General Provisions
i.	40 CFR Part 60, Subpart J (40 CFR 60.100-109)  [In accordance with 40 CFR 60.103(a), this emissions unit is defined as a fluid catalytic cracking unit catalyst regenerator, for which construction commenced after June 11, 1973 and before May 14, 2007, in a petroleum refinery.]	500 ppmvd CO as a 1-hr average [40 CFR 60.103(a)]  See b)(2)e.  The SO <sub>2</sub> and particulate matter standards specified by this subpart are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(D).  See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
j.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	General Provisions See c)(1)
k.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579)  [In accordance with 40 CFR 63.1562(b)(1), the affected facility is defined as the process vent or group of process vents on fluidized catalytic cracking units that are associated with regeneration of the catalyst used in the unit.]	See b)(2)f through b)(2)i.

(2) Additional Terms and Conditions

- a. During periods of gas oil Hydrotreater (HT) outage as defined in the HT Outage Plan, the permittee may comply with the most recent version of the HT Outage Plan approved by U.S. Environmental Protection Agency (EPA) in lieu of the nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions limits specified in b)(1)a.
- b. The rolling, 7-day and 365-day SO<sub>2</sub> and NO<sub>x</sub> parts per million by volume on a dry basis (ppmvd) and the 0.9 lb particulate emissions (PE) per 1,000 lbs coke burned limits were established as part of a Global Settlement Agreement dated August 28, 2001 between Marathon Petroleum Company, LLC (MPC) and the United States of America (Civil Case No. 01-40119 as filed on March 31, 2008).
- c. Pursuant to the State of Ohio Consent Order 2002CV02453 dated July 19, 2002, the opacity limitation shall not apply during the first sixteen (16) hours of shutdown of the FCCU, beginning when the feed removal sequence is started as part of the shutdown procedure. This correlates to times when the feed is removed and significant amounts of steam are added to the riser and opacity levels may increase significantly. This limitation shall also not apply during the first sixty (60) hours of an FCCU start-up. This time period shall begin with the loading of catalyst, or when beginning catalyst circulation if the work performed during shutdown does not include catalyst deinventory and reloading. This limitation shall also not apply during malfunctions if, the permittee complies with the requirements of OAC 3745-15-06 such that, as provided in OAC 3745-17-07(A)(3)(c), the emissions are not subject to the requirements of OAC 3745-17-07(A)(1).



d. The emissions limits specified in rules OAC 3745-18-82(E)(5) and 40 CFR 60, Subpart J are less stringent than the limits established pursuant to the Global Settlement Agreement dated August 28, 2001 between Marathon Petroleum Company, LLC (MPC) and the United States of America (Civil Case No. 01-40119 as filed on March 31, 2008).

i. The OAC 3745-18-82(E)(5) limit of 0.62 lbs of sulfur dioxide per 1,000 pounds of fresh feed equates to ~450 ppmv using the following calculation:

$$0.62 * \frac{6,774}{24} * \frac{1}{5.97} * \frac{1,000}{64.065} = 458 \text{ ppmv } SO_2$$

Therefore, the Consent Decree limit of 90 ppmv SO<sub>2</sub> on a 7-day average is more stringent than the State Implementation Plan (SIP) limit of 0.62 lb SO<sub>2</sub>/1,000 pounds of coke burned on a 7-day average.

ii. The NSPS Subpart J SO<sub>2</sub> limit of 9.8 lbs of SO<sub>2</sub> per 1,000 pounds of coke burn equates to ~330 ppmv of SO<sub>2</sub> using the following calculation:

$$9.8 * \frac{12.74}{5.97} * \frac{1,000}{64.065} = 333 \text{ ppmv } SO_2$$

Therefore, the Consent Decree limit of 90 ppmv SO<sub>2</sub> on a 7-day average is more stringent than the NSPS limit of 9.8 lbs SO<sub>2</sub>/1,000 pounds coke burn on a 7-day average.

The above limits are found using the 2004 yearly averages of 6,774 thousand pounds of fresh feed per day, 12.74 thousand pounds of coke burn per hour, 5.97 thousand moles of flue gas per hour, and the molecular weight of SO<sub>2</sub>.

e. The permittee shall limit carbon monoxide (CO) emissions from the FCCU to 500 ppmvd as a 1-hour average. The CO limit shall not apply during periods of startup, shutdown, or malfunction of the FCCU provided that during such times MPC shall, to the extent practical, maintain and operate the affected facility in a manner consistent with good air pollution control practices for minimizing emissions. Acceptable operations and maintenance procedures will be determined based on monitoring results, inspection of the source, and a thorough review of the current operation and maintenance procedures.

f. MPC complies with the metal HAP and organic HAP emission limits in 40 CFR 63, Subpart UUU by complying with the 40 CFR 60, Subpart J particulate matter and CO emission standards, as referenced by 40 CFR 63.1564(a)(1) and 40 CFR 63.1565(a)(1).

g. The emission limitations and operating limits for metal HAP and organic HAP emissions from catalytic cracking units required by 63.1564(a)(1) and 63.1565(a)(1) do not apply during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in 63.1575(j).



- h. The permittee must be in compliance with all of the non-opacity standards in this subpart during the times specified in 40 CFR Part 63.6(f)(1).
- i. The permittee must always operate and maintain the affected emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR Part 63.6(e)(1)(i).

c) Operational Restrictions

- (1) The permittee shall operate and maintain a flare system in accordance with 40 CFR Part 63, Subpart A, Section 63.11(b) to control emissions vented from the FCCU.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable monitoring and recordkeeping requirements pursuant to 40CFR Part 63, Subpart UUU:

40 CFR 63.1564(a)(3); 40 CFR 63.1565(a)(3); 40 CFR 63.1574(f); 40 CFR 63.1576(e); 40 CFR 63.1564(c)(2); 40 CFR 63.1565(c)(2)	Operation, maintenance, and monitoring plan
40 CFR 63.1564(b)(1); 40 CFR 63.1565(b)(1); 40 CFR 63.1572(a)(1), (a)(3)-(4), (b)(1), (b)(3), and (d)	Install, operate, and maintain a continuous monitoring system according to 63.1572
40 CFR 63.1570(d)	Startup, shutdown and malfunction plan
40 CFR 63.1576(a)-(b); 40 CFR 63.1576(d)-(i)	Record keeping requirements

- (2) The permittee shall comply with the applicable monitoring and recordkeeping requirements pursuant to 40 CFR Part 60, Subpart J:

40 CFR 60.105(a)(1)	Continuous opacity monitor
40 CFR 60.105(a)(2)	Continuous CO emissions monitor
40 CFR 60.105(c)	Daily record of coke burn-off rate and hours of operation



- (3) The permittee shall operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
- a. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system, designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and logbook dedicated to the continuous 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.
- 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.
- c. The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO<sub>x</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 6, as appropriate. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- d. The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to:
- i. emissions of NO<sub>x</sub> in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
  - ii. emissions of NO<sub>x</sub> in units of ppmvdNO<sub>x</sub> (0% O<sub>2</sub>) as a rolling, 7-day average limit and as a rolling, 365-day average limit;
  - iii. results of quarterly cylinder gas audits;
  - iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
  - v. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
  - vi. hours of operation of the emissions unit, continuous NO<sub>x</sub> monitoring system, and control equipment;



- vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO<sub>x</sub> monitoring system;
- viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO<sub>x</sub> monitoring system; as well as
- ix. the reason (if known) and the corrective actions taken (if any) for each such event in (vii.) and (viii.).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (4) The permittee shall operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record SO<sub>2</sub> emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

- a. The permittee shall maintain a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system, designed to ensure continuous valid and representative readings of the SO<sub>2</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and logbook dedicated to the continuous 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.

- 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.
- 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 SO<sub>2</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 6. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- d. The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to:
  - i. emissions of SO<sub>2</sub> in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required:



- ii. emissions of SO<sub>2</sub> in units of ppmvd SO<sub>2</sub> (0% O<sub>2</sub>) as a rolling 7-day average limit and as a rolling, 365-day average limit;
- 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 SO<sub>2</sub> monitoring system, and control equipment;
- vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO<sub>2</sub> monitoring system;
- viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO<sub>2</sub> monitoring system; as well as,
- ix. the reason (if known) and the corrective actions taken (if any) for each such event in (vii.) and (viii.).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (5) The permittee shall operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record CO 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.

- a. The permittee shall maintain a written quality assurance/quality control plan for the continuous CO monitoring system, designed to ensure continuous valid and representative readings of CO 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 logbook dedicated to the continuous 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.



- 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.
- 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 CO monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4a and 6, as appropriate. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- d. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to:
  - i. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
  - ii. emissions of CO in units of ppmvd as a 1-hour average;
  - 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 CO 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 CO 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 CO 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.).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (6) Pursuant to the requirements of 40 CFR Part 51, Appendix P "Minimum Emissions Monitoring Requirements", the permittee shall operate and maintain a continuous opacity monitoring system (COMS) to continuously monitor and record the opacity of particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.



- a. the permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring accurate operation of the continuous opacity monitoring system on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on-site and available for inspection during regular office hours.
- b. the continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.
- c. the permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office verifying that the continuous opacity monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. 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.

- d. The permittee shall maintain records of data obtained by the continuous opacity monitoring system, but not limited to:
  - i. percent opacity on an instantaneous (one-minute) and 6-minute block average basis;
  - ii. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
  - iii. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;
  - iv. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
  - v. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; as well as,
  - vi. the reason (if known) and the corrective actions taken (if any) for each such even in (iv.) and (v.).



- (7) The permittee shall operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record O<sub>2</sub> emitted from this emission unit in percent O<sub>2</sub>. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
- a. The permittee shall maintain a written quality assurance/quality control plan for the continuous O<sub>2</sub> monitoring system, designed to ensure continuous valid and representative readings of O<sub>2</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and logbook dedicated to the continuous 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.
- 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.
- 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 O<sub>2</sub> monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 3. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- d. The permittee shall maintain records of all data obtained by the continuous O<sub>2</sub> monitoring system including, but not limited to:
- i. the percent O<sub>2</sub> with each cycle time of the analyzer, with no resolution less than one data point per minute required;
  - ii. results of quarterly cylinder gas audits;
  - iii. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
  - iv. results of required relative accuracy test audit(s);
  - v. hours of operation of the emissions unit, continuous O<sub>2</sub> monitoring system;
  - vi. the date, time, and hours of operation of the emissions unit without the continuous O<sub>2</sub> monitoring system;



- vii. the date, time and hours of operation of the emissions unit during any malfunction of the continuous O<sub>2</sub> monitoring system; as well as,
- viii. the reason (if known) and the corrective actions taken (if any) for each such even in (vi.) and (vii.).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (8) The permittee shall maintain hourly records of the NO<sub>x</sub> emissions in lb/hr as calculated based on the ppmvd data recorded by the continuous emission monitoring system (CEMS).
- (9) The permittee shall maintain daily records of the average coke burn-off rate (tons per hour) and hours of FCCU operation pursuant to 40 CFR Part 60, Subpart J, Section 60.105(c) and 40 CFR 63, Subpart UUU, Section 63.1564.
- (10) The permittee shall maintain monthly records of the NO<sub>x</sub>, SO<sub>2</sub>, PE, and CO emissions (in tons per year) calculated by rolling, 12-month summation.

e) Reporting Requirements

- (1) The permittee shall comply with the applicable reporting requirements pursuant to 40 CFR Part 60, Subpart J:

40 CFR 60.105(e)	Excess emissions reports
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- (2) The permittee shall comply with the applicable reporting requirements pursuant to 40 CFR Part 60, Subpart UUU:

40 CFR 63.1574(a) and (d)	Notification of compliance status
40 CFR 63.1570(f), (g), and 63.1575(a)	Semiannual compliance report requirement
40 CFR 63.1575(b)(3)-(5)	Compliance report due dates
40 CFR 63.1575(c)-(j)	Compliance report contents

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO<sub>x</sub>, SO<sub>2</sub>, and CO monitoring system:

- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio



EPA District Office or local air agency, documenting all instances of NO<sub>x</sub>, SO<sub>2</sub>, and/or CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the following:

- i. the date of the exceedance;
- ii. the commencement and completion times of the exceedance;
- iii. the duration and magnitude of each exceedance; as well as
- iv. 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 emission monitor 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 operating time (hours) of the emissions unit;
  - vi. the total operating time of the continuous emission monitoring system while the emissions unit was in operation;
  - vii. results and dates of quarterly cylinder gas audits;
  - viii. 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));
  - ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous emission monitor out-of-control and the compliant results following any corrective actions;



- x. the date, time, and duration of any/each malfunction\*\* of the continuous emission monitoring system, emissions unit, and/or control equipment;
- xi. the date, time, and duration of any downtime\*\* of the continuous emission monitoring system and/or control equipment while the emissions unit was in operation; and
- xii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(x.) and (xi.).

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

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous opacity 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 opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the following:
    - i. the date of the exceedance;
    - ii. the commencement and completion times of the exceedance;
    - iii. the duration and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s); as well as,
    - iv. the reason (if known) and the corrective actions taken (if any) for each exceedance.
  - 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 opacity monitor;
    - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to



- the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS 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 operating time (hours) of the emissions unit;
  - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
  - vii. the date, time, and duration of any/each malfunction\*\* of the continuous opacity monitoring system, emission unit, and/or control equipment;
  - viii. the date, time, and duration of any downtime\*\* of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
  - ix. the reason (if known) and the corrective actions taken (if any) for each event in (b)(vii.) and (b)(viii.).

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

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

\*\* each downtime and malfunction event shall be reported regardless if there is an exceedance of the opacity limit.

- (5) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous O<sub>2</sub> monitoring system:
  - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring system contained in 40 CFR Part 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 the each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous O<sub>2</sub> monitoring system downtime and malfunction while the emissions unit was online.
  - 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 O<sub>2</sub> and other associated monitors;



- iii. a description of any change in the equipment that comprises the continuous emission monitoring system, 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 total operating time (hours) of the emissions unit;
- v. the total operating time of the continuous O<sub>2</sub> monitoring system while the emissions unit was in operation;
- vi. results and dates of quarterly cylinder gas audits;
- vii. unless previously submitted, results and dates of the relative accuracy test audit(s) (during appropriate quarter(s));
- viii. unless previously submitted, the results of any relative accuracy test audit showing the continuous O<sub>2</sub> monitor out-of-control and the compliant results following any corrective actions;
- ix. the date, time and duration of any/each malfunction\* of the continuous O<sub>2</sub> monitoring system while the emissions unit was in operation;
- x. the date, time, and duration of any downtime\* of the continuous O<sub>2</sub> monitoring system while the emissions unit was in operation; and
- xi. the reason (if known) and the corrective actions taken (if any) for each event in (b)(ix.) and (x.).

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

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

- (6) The permittee shall submit quarterly deviation (excursion) reports that identify all instances of flare system operational noncompliance with Section c)(1) of this permit.

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 Limitations:

- 71 lbsNO<sub>x</sub> per hour

- 72 ppmvdNO<sub>x</sub> (0% O<sub>2</sub>) as a 7-day rolling average



52 ppmvdNO<sub>x</sub> (0% O<sub>2</sub>) as a 365-day rolling average

64.5 tons NO<sub>x</sub> per year as a rolling, 12-month summation

Applicable Compliance Method:

The monitoring and record keeping requirements in Sections d)(3) and (8) shall be used to demonstrate compliance with the hourly, 7-day rolling average, and 365-day rolling average NO<sub>x</sub> emissions limitations.

If required, the permittee shall demonstrate compliance with the 71 lbsNO<sub>x</sub> per hour limit in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7 or 7E. An alternative U.S. EPA approved test method may be used with prior approval from Ohio EPA.

The total monthly NO<sub>x</sub> emissions shall be calculated as shown below:

(Average daily NO<sub>x</sub>emissions rate in tons NO<sub>x</sub>/day calculated from the CEMS data) x (Number of operation days for the FCCU/month) = (Total calculated monthly NO<sub>x</sub> emissions in tons NO<sub>x</sub>/month)

The permittee shall calculate a rolling, 12-month summation of the total NO<sub>x</sub> emissions to comply with the annual limitation.

b. Emission Limitation:

90 ppmvd SO<sub>2</sub> (0% O<sub>2</sub>) as a 7-day rolling average

45 ppmvd SO<sub>2</sub> (0% O<sub>2</sub>) as a 365-day rolling average

100.0 tons SO<sub>2</sub> per year as a rolling, 12-month summation

Applicable Compliance Method:

The monitoring and record keeping requirements in Section d)(4) shall be used to demonstrate compliance with the 7-day rolling average and 365-day rolling average ppmvd SO<sub>2</sub> emissions limitations.

The total monthly SO<sub>2</sub> emissions shall be calculated as shown below:

(Average daily SO<sub>2</sub> emissions rate in tone SO<sub>2</sub>/day calculated from the CEMS data) x (Number of operation days for the FCCU/month) = (Total calculated monthly SO<sub>2</sub> emissions in tons SO<sub>2</sub>/month)

The permittee shall calculate a rolling, 12-month summation of the total SO<sub>2</sub> emissions to comply with the annual limitation.



c. Emission Limitation:

500 ppmvd CO as a 1-hour average

164.4 tons CO per year as a rolling, 12-month summation

Applicable Compliance Method:

The monitoring and record keeping requirements in Section d)(2) and (5) shall be used to demonstrate compliance with the 1-hour average ppmvd CO emissions limitation.

If required, the permittee shall demonstrate compliance with the 500 ppmvd CO as a 1-hour average in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10. An alternative U.S. EPA approved test method may be used with prior approval from Ohio EPA.

The total monthly CO emissions shall be calculated as shown below:

(Average daily CO emissions rate in tons CO/day calculated from the CEMS data) x (Number of operating days for the FCCU per month) = (Total calculated monthly CO emission in tons CO/month).

The permittee shall calculate a rolling, 12-month summation of the total CO emissions to comply with the annual limitation.

d. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

The monitoring and record keeping requirements in Section d)(2) and (6) shall be used to demonstrate compliance. If required, Method 9 of 40 CFR Part 60, Appendix A shall be used to demonstrate compliance.

e. Emission Limitation:

0.9 lb PE per 1,000 lbs coke burned in the FCCU

63.1 tons PE per year as a rolling, 12-month summation

Applicable Compliance Method:

The calculation procedures specified in 40 CFR Part 60, Subpart J, Section 60.106(b) shall be used to demonstrate compliance with the emissions limit of 0.9 lb PE per 1,000 lbs of coke burned in the FCCU on a daily basis. If required, the permittee shall conduct performance tests in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 5B and 5F, and 40 CFR 60.106(b). An alternative U.S. EPA approved test method may be used with prior approval from Ohio EPA.



The total monthly PE emissions shall be calculated as shown below:

(Average daily PE emissions rate in tons PE/day calculated using the procedure specified in 40 CFR 60.106) x (Number of operating days for the FCCU per month) = (Total calculated monthly PE emission in tons PE/month)

The permittee shall calculate a rolling, 12-month summation of the total PE emissions to comply with the annual limitation.

g) Miscellaneous Requirements

- (1) None.