



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

6/15/2016

Certified Mail

Karl Duckworth
Marathon Petroleum Company LP - Canton Refinery
2408 Gambrinus Ave SW
Canton, OH 44706

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1576002006
Permit Number: P0119915
Permit Type: Administrative Modification
County: Stark

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**
- **What should you do if you notice a spill or environmental emergency?**

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

How to give us feedback on your permitting experience

Please complete a survey at 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

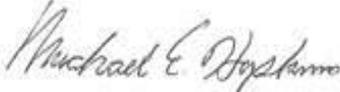
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, 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 E. Hopkins, P.E.
Assistant Chief, Permitting 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:	P0119915
Permit Type:	Administrative Modification
Issued:	6/15/2016
Effective:	6/15/2016



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

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. B019, FCC Charge Heaters	14



Final Permit-to-Install
Marathon Petroleum Company LP - Canton Refinery
Permit Number: P0119915
Facility ID: 1576002006
Effective Date: 6/15/2016

Authorization

Facility ID: 1576002006
Facility Description: Petroleum Refinery
Application Number(s): M0003675
Permit Number: P0119915
Permit Description: Administrative Modification to increase the annual NOx emission limit to 19.9 tons/yr and heat input limitation to 406,031 MMBtu/yr. These increases are accounting for the emissions and heat input from the emissions unit's eight natural gas-fired pilots, which were not included in the 2004 Turnaround Project emissions estimate or PTI P0105567.
Permit Type: Administrative Modification
Permit Fee: \$200.00
Issue Date: 6/15/2016
Effective Date: 6/15/2016

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.

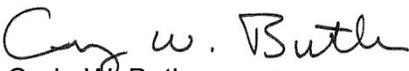
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0119915

Permit Description: Administrative Modification to increase the annual NOx emission limit to 19.9 tons/yr and heat input limitation to 406,031 MMBtu/yr. These increases are accounting for the emissions and heat input from the emissions unit's eight natural gas-fired pilots, which were not included in the 2004 Turnaround Project emissions estimate or PTI P0105567.

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

Emissions Unit ID:	B019
Company Equipment ID:	FCC Charge Heaters
Superseded Permit Number:	P0105567
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Marathon Petroleum Company LP - Canton Refinery
Permit Number: P0119915
Facility ID: 1576002006
Effective Date:6/15/2016

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.



Final Permit-to-Install
Marathon Petroleum Company LP - Canton Refinery
Permit Number: P0119915
Facility ID: 1576002006
Effective Date:6/15/2016

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.



Final Permit-to-Install
Marathon Petroleum Company LP - Canton Refinery
Permit Number: P0119915
Facility ID: 1576002006
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C. Emissions Unit Terms and Conditions



1. B019, FCC Charge Heaters

Operations, Property and/or Equipment Description:

Two Fluidized Catalytic Cracker (FCC) regenerator charge heaters 4-2-B-5 and 4-2-B-6 and heat exchanger; equipment has a maximum fuel heat input of 51 MMBtu/hr combined plus 8 pilots rated at 3.10 ft³/min each.

- 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) established in PTI 15-01539 issued 11/13/2003]	Sulfur Dioxide (SO ₂) emissions shall not exceed 0.025 pounds per million British thermal units (lbs/MMBtu) of actual heat input See c)(1) – (3)
b.	OAC rule 3745-31-05(D) [Federally enforceable limitation to avoid PSD previously established in PTI P0103854 issued 04/23/2009 and administratively modified to increase NOx limit in this permit]	Nitrogen Oxide (NOx) emissions shall not exceed 19.9 tons per year (tons/yr) as a rolling, 365-day summation of emissions SO ₂ emissions shall not exceed 5.4 tons/yr as a rolling, 52-week summation of emissions Carbon Dioxide (CO) emissions shall not exceed 11.0 tons/yr as a rolling, 365-day summation of emissions See c)(3)
c.	OAC rule 3745-17-07(A)	Visible emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.02 lb/MMBtu of actual heat input
e.	OAC rule 3745-18-82(E)	See b)(2)a.
f.	40 CFR part 60, subpart A (40 CFR 60.1 – 19)	General Provisions



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	40 CFR part 60, subpart J (40 CFR 60.100 – 109) See b)(2)b.	The permittee shall not burn any fuel gas that contains Hydrogen Sulfide (H ₂ S) in excess of 230 milligrams per standard cubic meter on a dry basis (mg/dscm) (0.10 grains per standard cubic feet on a dry basis (gr/dscf) or 162 parts per million by volume (ppmv)) [40 CFR 60.104(a)(1)]
h.	40 CFR part 63, subpart A (40 CFR 63.1 – 16)	General Provisions
i.	40 CFR part 63, subpart DDDDD (40 CFR 63.7480 – 7575) [applicability, 40 CFR 63.7485; affected source, 40 CFR 63.7490]	See b)(2)c. and c)(4) – (5) The permittee shall demonstrate compliance with any applicable limit that is published in a final amendment to subpart DDDDD, as required by the subpart.

(2) Additional Terms and Conditions

- a. The 1.0 lb SO₂/MMBtu emission limitation specified in OAC rule 3745-18-82(E) is less stringent than the emission limitation established pursuant to Ohio Administrative Code (OAC) rule 3745-31-05(A)(3).
- b. In accordance with 40 CFR 60.100(b), this emissions unit is a fuel gas combustion device for which construction or modification commenced after June 11, 1973 and before May 14, 2007 in a petroleum refinery.
- c. The permittee shall comply with the applicable requirements pursuant to 40 CFR part 63, subpart DDDDD:

40 CFR 63.7490	The process heater is an “existing” source if construction or reconstruction commenced on or before June 4, 2010.
40 CFR 63.7495(b)	An existing process heater must be in compliance with 40 CFR part 63, subpart DDDDD no later than January 31, 2016.
40 CFR 63.7500(a)(1) and (2)	Meet each applicable emission limit identified in Table 1 or 2; the work practice standard in Table 3; and the operating limits in Table 4 of 40 CFR part 63, subpart DDDDD. This emissions unit is only subject to the work practice standards in Table 3 as an existing process heater in the Gas 1 subcategory with



	a heat input capacity of 10 MMBtu/hr or greater each.
40 CFR 63.7510(e); 40 CFR 63.7530(e); 40 CFR 63.7540(a)(10); and 40 CFR part 63, subpart DDDDD Table 3	An initial tune-up or a one-time energy assessment must be performed by a qualified energy assessor no later than the compliance date identified in 40 CFR 63.7495. The requirements for the tune-ups and the frequency (annual) of the tune-ups is identified in 40 CFR 7540(a)(10). The requirements for the energy assessment are identified in Table 3.
40 CFR 63.7500(a)(3)	The emissions unit and associated air pollution control and monitoring equipment must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

c) Operational Restrictions

- (1) The permittee shall only burn refinery fuel gas, natural gas, and/or landfill gas in this emissions unit. Hereinafter, this mixture of fuel gases shall be referred to as "refinery fuel gas." The sulfur content of the refinery fuel gas burned in this emissions unit shall comply with the allowable emission limitation of 0.025 lb SO₂/MMBtu of actual heat input.
- (2) All refinery fuel gas burned in this emissions unit shall be supplied from the South Area fuel drum.
- (3) The maximum annual heat input rate shall not exceed 406,031 MMBtu/yr based on a rolling, 365-day summation of the product of the daily gas usage rates and the corresponding average weekly gas heat content.
- (4) Pursuant to 40 CFR 63.7540(a)(10), an existing process heater in the Gas 1 subcategory with heat input capacity of greater than or equal to 10 MMBtu/hr must demonstrate continuous compliance by conducting an annual tune-up (no more than 13 months after the previous tune-up) and inspection according to 40 CFR 63.7540(a)(1), which includes measuring the concentration of CO in the effluent stream in ppmv and oxygen in volume percent and maintaining a record/report of the results of the inspection and the fuel(s) burned in each boiler during the year.
- (5) Pursuant to 40 CFR 63.7530(e), a one-time energy assessment must be performed by a qualified energy assessor for the existing boiler. The required information for the assessment is identified in Table 3 #4 of 40 CFR part 63, subpart DDDDD.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable monitoring and recordkeeping requirement pursuant to 40 CFR part 60, subpart J:

40 CFR 60.105(a)(4)	Continuous monitoring of H ₂ S fuel gas concentration
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- (2) The permittee shall maintain a quality assurance/quality control plan for the continuous H₂S monitoring system, designed to ensure continuous valid and representative readings of H₂S 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 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.

- (3) 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.
- (4) 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 H₂S monitoring system has been certified to meet the requirements of 40 CFR part 60, appendix B, Performance Specification 7. The letter/document of certification shall be made available to the director (the appropriate Ohio EPA District Office or the Canton City Health Department, Air Pollution Control Division) upon request.
- (5) The permittee shall operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record H₂S 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 all data obtained by the continuous H₂S monitoring system including, but not limited to:

- a. emission of H₂S in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of H₂S, in units of parts per million by volume as a rolling, 3-hour average and in units of parts per million by volume determined daily on a 365 successive calendar day rolling average basis;
- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. hours of operation of the emissions unit, continuous H₂S monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous H₂S monitoring system;
- h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous H₂S monitoring system; as well as
- i. the reason (if known) and the corrective actions taken (if any) for each such event in g) and h).

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) The permittee shall collect samples, at least three times per week, of the refinery fuel gas for gas chromatographic analysis. The permittee shall collect the refinery fuel gas samples using procedures that will ensure the sample containers are adequately purged prior to sample collection, thereby, ensuring a representative refinery fuel gas sample. The permittee shall maintain a copy of the sampling procedure on-site.
- (7) The permittee shall maintain weekly records of the weekly average actual heating value of the refinery fuel gas as burned in this emissions unit. The actual heating value (H), in British thermal units per standard cubic feet (Btu/scf), of the refinery fuel gas shall be calculated as follows from the results of the weekly refinery fuel gas compositional analysis using gas chromatography:

$$H = \sum (h_i * m_i)$$

Where:

h_i = the HHV of each chemical compound detected in the refinery fuel gas, in Btu/lb of chemical, as found in the most recent edition of the Gas Processors Supplies Association (GPSA) manual

m_i = the mass fraction of each chemical compound detected in the refinery fuel gas using chromatography analysis

- (8) The permittee shall use one of the following methods to conduct the compositional analysis of the refinery fuel gas samples:

ASTM D1945 – 96

ASTM D1945 – 96 (Wasson Modification)

GPA Method 2261 – 90

When using the Wasson Modification of ASTM Method D 1945 – 96, the permittee shall follow, at a minimum, QA/QC requirements specified in ASTM D1945 – 96. The permittee shall also operate and maintain the Wasson gas chromatographic instrumentation according to the manufacturer’s specification and recommendations. Alternative, equivalent methods may be used with written approval by the director (the appropriate Ohio EPA District Office or the Canton City Health Department, Air Pollution Control Division) upon request.

- (9) The permittee shall maintain weekly records of each calculated, weekly average of the SO₂ emissions rate in lbs/MMBtu discharged from each emissions unit. The SO₂ emissions rate shall be calculated as follows:

$$SO_2 \text{ mass emissions rate} = \frac{\left[Conc_{H_2S} * \frac{1 \text{ scf } H_2S}{1 * 10^6 \text{ ppm}} * \frac{1 \text{ mole } H_2S}{379 \text{ scf } H_2S} * \frac{1 \text{ mole } SO_2}{\text{mole } H_2S} * \frac{64 \text{ lbs } SO_2}{\text{mole } SO_2} \right]}{H}$$

Where:

Conc_{H₂S} = the weekly average H₂S concentration in ppm from the continuous emissions monitoring system (CEMS)

- (10) For each day during which the permittee burns a fuel other than refinery fuel gas, the permittee shall maintain a record of the following:
- a. type of fuel burned;
 - b. quantity of fuel burned;
 - c. sulfur content in lbs of sulfur/MMdscf of the fuel burned; and
 - d. the heating value in Btu/dscf of the fuel burned.
- (11) The permittee shall maintain daily records of the following information:
- a. the gas usage rate for each day; and
 - b. the rolling, 365-day summation of the product of the gas usage rate and the corresponding average weekly gas heat content.
- (12) The permittee shall comply with the applicable monitoring and recordkeeping requirements pursuant to 40 CFR part 63, subpart DDDDD:

<p>40 CFR 63.7555; 40 CFR 63.7560; and 40 CFR 63.10(b)</p>	<p>The records required by the NESHAP are identified in 40 CFR 63.7555 and they must be kept for at least 5 years following the date of the record or report submitted</p>
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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 following quarterly reporting requirements for the emissions unit and its continuous H₂S monitoring system:

a. Pursuant to the monitoring, recordkeeping, and reporting requirements for continuous monitoring system 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 Canton City Health Department, Air Pollution Control Division, documenting all instances of H₂S emissions in excess of any applicable limit specified in this permit, 40 CFR part 60, 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 31, April 30, July 31, and October 31 of each year and shall include the following:

- i. the facility name and address;
- ii. the manufacturer and model number of the continuous hydrogen sulfide 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 H₂S 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 H₂S 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 H₂S monitoring system, emissions unit, and/or control equipment;
- xi. the date, time, and duration of any downtime** of the continuous H₂S 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 term e)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 has 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

- (3) The permittee shall submit annual deviation reports which identify any time the emissions unit exceeds the NO_x and CO tons/yr rolling, 365-day summation of emissions, and/or the SO₂ tons/yr rolling, 52-week summation of emissions specified in term b)(1) of this permit. The annual deviation reports shall be submitted to the Canton City Health Department, Air Pollution Control Division by January 31st of each year and shall address the data obtained during the previous calendar year.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify each weekly average SO₂ emission rate, as calculated in term d)(9), that exceeds the SO₂ emission limitation of 0.025 pound of SO₂ per MMBtu of actual heat input for the burning of refinery fuel gas.
- (5) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas is burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (6) The permittee shall comply with the applicable reporting requirements pursuant to 40 CFR part 63, subpart DDDDD:



40 CFR 63.7495(d); 40 CFR 63.7545; and 40 CFR 63.7530(f)	The notification requirements identified in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), 40 CFR 63.9(b) – (h), and 40 CFR 63.7545 shall be submitted to the appropriate district office or local air agency no later than the date identified in 40 CFR 63.7545.
40 CFR 63.7550(a) and (b) and 40 CFR part 63, subpart DDDDD, Table 9	The owner/operator must submit each compliance report identified in Table 9 to the NESHAP that is applicable to the boiler, either semiannually, annually, or biennially according to the requirements identified in 40 CFR 63.7550(b).
40 CFR 60.7550(c) – (h)	These paragraphs identify the information required to be submitted in the compliance report.
40 CFR 63.7530(e)	The Notification of Compliance Status report must include a signed certification that an energy assessment was completed according to Table 3 to 40 CFR part 63 and that is an accurate depiction of the facility.

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:

0.025 lb SO₂/MMBtu of actual heat input

Applicable Compliance Method:

Compliance with the lb/MMBtu SO₂ limit shall be demonstrated based upon the recordkeeping requirements specified in term d)(9).

If required, the permittee shall demonstrate compliance with the SO₂ lb/MMBtu emissions limitation in accordance with procedures specified in 40 CFR part 60, appendix A, Method 6 or one of its approved modifications and OAC rule 3745-18-04.

b. Emission Limitation:

19.9 tons NO_x/yr as a rolling, 365-day summation of emissions

Applicable Compliance Method:

Compliance with the tons/yr NO_x limit shall be demonstrated by calculating the rolling, 365-day summation of the product of the daily gas usage in MMscf and the corresponding average weekly refinery fuel gas heat content in MMBtu/MMscf. The daily gas usage shall include the gas usage from the natural



gas fired pilots. The annual quantity of NO_x (in tons) discharged per year shall be calculated as follows:

$$Annual\ NO_x = \frac{0.098\ lb\ NO_x}{MMBtu} * total\ heat\ input * \frac{1\ ton}{2,000\ lbs}$$

Where:

total heat input = rolling, 365-day total heat input to the emissions unit, in MMBtu/yr

c. Emission Limitation:

5.4 tons SO₂/yr as a rolling, 52-week summation of emissions

Applicable Compliance Method:

Compliance with the tons/yr SO₂ limits shall be demonstrated by calculating the rolling, 52-week summation of the total tons of SO₂ discharged from the respective emissions units per week. The average weekly quantity of SO₂ (in tons) discharged shall be calculated as follows:

$$\begin{aligned}
 Ave\ SO_2 &= fuel\ gas * Conc_{H_2S} * \frac{1\ scf\ H_2S}{10^6\ ppm} * \frac{1\ mole\ H_2S}{379\ scf\ H_2S} * \frac{1\ mole\ SO_2}{1\ mole\ H_2S} \\
 &* \frac{64\ lbs\ SO_2}{1\ mole\ SO_2} * \frac{1\ ton}{2,000\ lbs}
 \end{aligned}$$

Where:

AvgSO₂ = average weekly quantity of SO₂

fuel gas = refinery fuel gas that is burned in the emissions unit per week, in dscf

Conc_{H₂S} = weekly average H₂S concentration from the CEMS, in ppm

d. Emission Limitation

11.0 tons CO/yr as a rolling, 365-day summation of emissions

Applicable Compliance Method:

Compliance with the tons/yr CO limit shall be demonstrated by calculating the rolling, 365-day summation of the product of the daily gas usage in MMscf and the corresponding average weekly refinery fuel gas heat content in MMBtu/MMscf. The annual quantity of CO (in tons) discharged per year shall be calculated as follows:



Final Permit-to-Install
Marathon Petroleum Company LP - Canton Refinery
Permit Number: P0119915
Facility ID: 1576002006
Effective Date: 6/15/2016

$$AnnualCO = \frac{0.045 \text{ lbCO}}{MMBtu} * totalheatinput * \frac{1 \text{ ton}}{2,000 \text{ lbs}}$$



e. Emission Limitation:

20% opacity as a 6-minute average, except as provided by rule

Applicable Compliance Method:

If required, the permittee shall conduct visible particulate emission observations in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) and the procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

0.020 lb PE/MMBtu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the PE lb/MMBtu of actual heat input emissions limitation in accordance with procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and OAC rule 3745-17-03(B)(10).

g. Emission Limitations:

230 mg H₂S/dscm (0.10 gr H₂S/dscf or 162 ppmv)

Applicable Compliance Method:

Ongoing compliance with the H₂S emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in term d)(5); and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

If required, the permittee shall determine compliance according to the methods required by 40 CFR Part 60, Subpart J:

40 CFR 60.106(e)	H ₂ S performance tests
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(2) The permittee shall conduct emission testing in accordance with the following requirements for Continuous Emission Monitoring Systems:

- a. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or the Canton City Health Department, Air Pollution Control Division. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emission loading is deemed the most challenging

control scenario. Failure to test under those conditions is justification for not accepting the test results as a demonstration of compliance. For relative accuracy test audits, at least 50% of the representative conditions need to be achieved during the audits.

- b. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton City Health Department, Air Pollution Control Division. 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 refusal to accept the results of the emission test(s).
- c. Personnel from the Canton City Health Department, Air Pollution Control Division 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.
- d. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton City Health Department, Air Pollution Control Division within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Canton City Health Department, Air Pollution Control Division.

g) **Miscellaneous Requirements**

- (1) On August 28, 2001, Marathon Petroleum Company (MPC) and the United States of America entered into a global settlement agreement (Civil No. 01-40119) entailing several air quality regulations. As part of the settlement, MPC agreed to achieve certain emission limits within specified time periods from its refinery located in Canton, Ohio. In meeting the following commitment, MPC is released from civil liabilities associated with 40 CFR part 52.21 and 40 CFR part 60, subpart J for process heater and boiler projects which occurred prior to May 11, 2001.
 - a. Install NO_x controls on the refinery-wide set of process heaters and boilers in accordance with Paragraph 13 and Appendix C of the Global Settlement Agreement (GSA).
 - b. Eliminate fuel oil burning and meet the new source performance standard for fuel gas for all process heaters and boilers as outlined in Paragraph 15 and Appendix G of the GSA.