



# Indiana Department of Environmental Management

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Commissioner

## NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a  
Significant Modification to a  
Part 70 Operating Permit

for CountryMark Refining and Logistics, LLC in Posey County

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

The Indiana Department of Environmental Management (IDEM) has received an application from CountryMark Refining and Logistics, LLC, located at 1200 Refinery Road, Mount Vernon, IN 47620, for a significant modification of its Part 70 Operating Permit issued on May 1, 2015. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow CountryMark Refining and Logistics, LLC to make certain changes at its existing source. CountryMark Refining and Logistics, LLC has applied to modify the FCCU and the Alkylation Unit and add a Sats Gas Unit and new storage tanks.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Alexandrian Public Library  
115 W. 5th Street  
Mount Vernon, IN 47620

and

IDEM Southwest Regional Office  
1120 N. Vincennes Avenue  
P.O. Box 128  
Petersburg, IN 47567-0128

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

### How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will

make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 129-37428-00003 and SPM 129-37429-00003 in all correspondence.

**Comments should be sent to:**

Kristen Willoughby  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension 3-3031  
Or dial directly: (317) 233-3031  
Fax: (317) 232-6749 attn: Kristen Willoughby  
E-mail: [kwilloug@idem.IN.gov](mailto:kwilloug@idem.IN.gov)


All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Kristen Willoughby or my staff at the above address.



Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality



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Commissioner

## DRAFT

Mr. Jim Pankey  
CountryMark Refining and Logistics, LLC  
1200 Refinery Road  
Mount Vernon, IN 47620

Re: 129-37428-00003  
Significant Source Modification

Dear Mr. Pankey:

CountryMark Refining and Logistics, LLC was issued Part 70 Operating Permit Renewal No. T129-35008-00003 on May 1, 2015 for a stationary petroleum refinery located at 1200 Refinery Road, Mount Vernon, IN 47620. An application to modify the source was received on July 25, 2016. Pursuant to the provisions of 326 IAC 2-7-10.5, a Significant Source Modification is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

- (a) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
  - (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9.
  - (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10.
  - (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (b) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
  - (1) Leaks from process equipment, including valves, pumps, and flanges.
- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:
  - (1)

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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

(2) Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.

(3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.

(d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135

(e) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:

(1) LSG Reactor Charge Heater, identified as 810-H101, approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu, combusting refinery fuel gas only, and venting to stack 128.

The following construction conditions are applicable to the proposed modification:

### General Construction Conditions

- The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

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### Effective Date of the Permit

3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

### Commenced Construction

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(j), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

### Approval to Construct

6. Pursuant to 326 IAC 2-7-10.5(h)(2), this Significant Source Modification authorizes the construction of the new emission unit(s), when the Significant Source Modification has been issued.

Pursuant to 326 IAC 2-7-10.5(m), the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

Pursuant to 326 IAC 2-7-12, operation of the new emission unit(s) is not approved until the Significant Permit Modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification in accordance with 326 IAC 2-7-10.5(m)(2) and 326 IAC 2-7-12 (Permit Modification).

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Kristen Willoughby of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Kristen Willoughby or extension 3-3031 or dial (317) 233-3031.

Sincerely,

Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Significant Source Modification and Technical Support Document

cc: File - Posey County  
Posey County Health Department  
U.S. EPA, Region 5  
Compliance and Enforcement Branch  
IDEM Southeast Regional Office



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Governor

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Thomas W. Easterly  
Commissioner

## Significant Source Modification to a Part 70 Source

### OFFICE OF AIR QUALITY

**CountryMark Refining and Logistics, LLC**  
**1200 Refinery Road**  
**Mount Vernon, Indiana 47620**

(herein known as the Permittee) is hereby authorized to construct subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for new and/or existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Significant Source Modification No.: 129-37428-00003	
Issued by:  Jenny Acker, Section Chief, Permits Branch Office of Air Quality	Issuance Date:

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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**A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]**

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The Permittee owns and operates a stationary petroleum refinery.

Source Address:	1200 Refinery Road, Mount Vernon, Indiana 47620
General Source Phone Number:	(812) 838-8133
SIC Code:	2911
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program
	Major Source, under PSD Rules
	Major Source, Section 112 of the Clean Air Act
	1 of 28 Source Categories

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**A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]**

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This source definition for this source is incorporated into this permit as follows:

This petroleum refinery and marine vessel loading and unloading river dock terminal consists of two (2) plants:

- (a) Plant 1 is located at 1200 Refinery Road, Mount Vernon, IN 47620; and
- (b) Plant 2 is located at South Mann St. and West Ohio St., Mount Vernon, IN 47620.

However, these plants are located on one or more adjacent properties, have the same two digit SIC code and a support relationship, and are still under common ownership, therefore they are considered one (1) major source, as defined by 326 IAC 2-7-1(22).

A Part 70 Operating permits will be issued to CountryMark Refining and Logistics, LLC (129-00003). A separate Administrative Part 70 permit will be issued to CountryMark Cooperative, LLP (129-00037), solely for administrative purposes. This conclusion was initially determined under Significant Permit Modification (129-17940-00003) issued on November 24, 2003.

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**A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]**

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Truck loading rack, with a maximum capacity of 60,000 gallons of submerged loading of gasoline, kerosene or distillate oil per hour, installed in 1958, identified as Loading Rack, and exhausting to stack 65; controlled by the Loading Rack Flare, equipped with a 0.09 million British Thermal Units per hour (MMBtu/hr) natural gas fired pilot and designed to handle 160 actual cubic feet per minute (acfm) of hydrocarbon vapors, installed in 1998, and exhausting to stack 1D. Under 40 CFR 63, Subpart R, this facility is considered an existing bulk gasoline terminal.

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- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
  - (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.
  - (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:

(1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (2) Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.
  - (3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.
- (d) The following storage vessels:

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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
1	fixed roof cone tank	404,418	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	075;
2	fixed roof cone tank	404,502	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	076;
3	fixed roof cone tank	404,334	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	077;
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135
5	fixed roof cone tank	120,456	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	019;
6	fixed roof cone tank	120,456	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	020;
7	fixed roof cone tank	126,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	078;
8	fixed roof cone tank	126,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	079;
9	fixed roof cone tank	204,204	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	023;
10	fixed roof cone tank	121,590	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	024;
11A	fixed roof cone tank	8,820	168,000	oil water / mixture	1972	40 CFR 63, Subpart CC	080;
11B	fixed roof cone tank	8,820	168,000	oil water / mixture	1972	40 CFR 63, Subpart CC	081;
12	fixed roof cone tank	6,090	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1988	40 CFR 63, Subpart CC	082;
15	fixed roof cone tank	24,654	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1941	40 CFR 63, Subpart CC	083;

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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
18	internal floating roof tank/mechanical primary seal	1,052,013	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2003	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
19	fixed roof cone tank/internal floating roof tank/mechanical primary seal	616,938	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	032;
21	fixed roof cone tank	1,002,750	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1941	40 CFR 63, Subpart CC	034;
22A	fixed roof cone tank	1,050,000	84,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2003	40 CFR 63, Subpart CC	120;
22B	fixed roof cone tank/insulated/heated cone tank	1,050,000	16,800	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2006	40 CFR 63, Subpart CC	127;
24	fixed roof cone tank/internal floating roof tank/mechanical primary seal	588,714	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1985	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
25	fixed roof cone tank/internal floating roof tank/mechanical primary seal	656,614	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	038;
26	fixed roof cone tank/internal floating roof tank/mechanical primary seal	1,006,068	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	039;
33	fixed roof cone tank	2,262,960	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	085;
34	fixed roof cone tank	984,480	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	045;
35	fixed roof cone tank	997,962	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	046;
36	fixed roof cone tank	2,261,954	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	047;
37	fixed roof cone tank	2,247,126	210,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	048;



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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
38	fixed roof cone tank	2,248,386	210,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1948	40 CFR 63, Subpart CC	049;
39	fixed roof cone tank	2,250,234	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1948	40 CFR 63, Subpart CC	050;
40	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,222,388	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1949	40 CFR 63, Subpart CC	051;
41	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,204,244	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1949	40 CFR 63, Subpart CC	052;
42	fixed roof cone tank	2,261,574	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1950	40 CFR 63, Subpart CC	053;
43	fixed roof cone tank	2,254,098	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1951	40 CFR 63, Subpart CC	054;
44	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,310,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1951	40 CFR 63, Subpart CC	055;
45	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,310,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1951	40 CFR 63, Subpart CC	056;
46	fixed roof cone tank	3,402,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1955	40 CFR 63, Subpart CC	057;
47	fixed roof cone tank/internal floating roof tank/mechanical primary seal	4,610,550	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	058;
48	external floating roof tank/mechanical primary seal	4,032,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1958	40 CFR 63, Subpart CC	059;
49	external floating roof tank/mechanical primary seal	4,032,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1958	40 CFR 63, Subpart CC	060;

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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
50	fixed roof cone tank/internal floating roof tank/mechanical primary seal	3,934,266	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1965	40 CFR 63, Subpart CC	061;
51	fixed roof cone tank/internal floating roof tank/mechanical primary seal	3,937,266	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1973	40 CFR 63, Subpart CC	062;
52	fixed roof cone tank	3,935,148	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	063;
53	fixed roof cone tank	16,926	168,000	Ethanol,	1985	40 CFR 63, Subpart CC	086;
54	fixed roof cone tank	16,926	168,000	Ethanol,	1985	40 CFR 63, Subpart CC	087;
55	fixed roof cone tank	11,634	168,000	Ethanol,	1980	40 CFR 63, Subpart CC	088;
56	fixed roof cone tank	11,634	168,000	Ethanol,	1980	40 CFR 63, Subpart CC	089;
159	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1988	40 CFR 63, Subpart CC	103;
160	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	104;
161	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	105;
162	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	106;
163	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1983	40 CFR 63, Subpart CC	107;
164	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1983	40 CFR 63, Subpart CC	108;
165	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	109;
166	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	110;

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Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
167	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	111;
168	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1988	40 CFR 63, Subpart CC	112;
169	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1989	40 CFR 63, Subpart CC	113;
125	fixed roof cone tank/internal floating roof	157,000	6,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2005	40 CFR 63, Subpart CC	015;
172	fixed roof cone tank	18,480		hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2002	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	
173	fixed roof cone tank/insulated/heated cone tank	1,050,000	16,800	Residual Fuel Oil (No.6) or Petroleum Material with a vapor pressure equivalent to or less than 1.5 psi	2006	40 CFR 63, Subpart CC	128;
1000 TK 17	fixed roof cone tank	1,806,000	147,000	Distillate fuel blend/Gas oil	2015	40 CFR 63, Subpart CC	133

- (e) One (1) Main Refinery Flare, identified as 700-V101 with a maximum heat input rate of 371 MMBtu/hr of refinery fuel gas/process gas (with capacity for a supplementary pilot fuel heat input rate of 3.0 MMBtu/hr), installed in 1945 and replaced in 2006 and exhausting to stack 118.  
Under 40 CFR 60, Subpart Ja, the Main Refinery Flare is considered an affected facility by the Consent Decree as of June 3, 2013 or the earliest date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja.
- (f) One (1) Crude heater equipped with a Low-NOx burner, identified as 200-H2 with a maximum heat input rate of 131 MMBtu/hr, combusting refinery fuel gas, installed in 1955 and exhausting to stack 1. Under 40 CFR 60, Subpart J, the Crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Crude heater is considered an affected facility.
- (g) One (1) Unifiner heater, identified as 400-H5 with a maximum heat input rate of 20 MMBtu/hr, combusting refinery fuel gas, installed in 1959 and exhausting to stack 2. Under 40 CFR 60, Subpart J, the Unifiner heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Unifiner heater is considered an affected facility.
- (h) One (1) Cycle oil heater, identified as H-H2 with a maximum heat input rate of 10 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 3. Under 40 CFR 60, Subpart J, the Cycle oil heater, is considered an affected facility by the

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Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Cycle oil heater is considered an affected facility.

- (i) One (1) Naphtha splitter heater, identified as 900-H1 with a maximum heat input rate of 12.2 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 4. Under 40 CFR 60, Subpart J, the Naphtha splitter heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Naphtha splitter heater is considered an affected facility.
- (j) One (1) Vacuum heater, identified as 200-H4 with a maximum heat input rate of 14.1 mmBtu/hr, combusting refinery fuel gas, installed in 1950, approved to be modified in 2007, and exhausting to stack 5. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater is considered an affected facility.
- (k) One (1) Old Platformer heater, identified as Naphtha Splitter Reboiler 900-H2 with a maximum heat input rate of 27 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 6. Under 40 CFR 60, Subpart J, the Naphtha Splitter Reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Old Platformer heater is considered an affected facility.
- (l) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
  - (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.
  - (2) Leaks from process equipment, including valves, pumps, and flanges.
- (m) One (1) Auxiliary crude heater, identified as 200-H1 with a maximum heat input rate of 10.1 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 11. Under 40 CFR 60, Subpart J, the auxiliary crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Auxiliary crude heater is considered an affected facility.
- (n) One (1) Platformer stabilizer reboiler, identified as 300-H4 with a maximum heat input rate of 5.92 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 12. Under 40 CFR 60, Subpart J, the Platformer stabilizer reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Platformer stabilizer reboiler is considered an affected facility.
- (o) One (1) no. 1 boiler, constructed in 1957, with a maximum heat input rate of 52 MMBtu/hr of process gas, identified as B1 and exhausting to stack 8. Under 40 CFR 60, Subpart J, the No. 1 boiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the no. 1 boiler is considered an affected facility.
- (p) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is

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considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.

- (q) One (1) Vacuum heater husky, identified as 200-H3 with a maximum heat input rate of 6.27 MMBtu/hr, combusting refinery fuel gas, installed in 1963 and exhausting to stack 64. Under 40 CFR 60, Subpart J, the vacuum heater Husky, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater husky is considered an affected facility.
- (r) One (1) CCR Platformer Unit which includes one (1) CCR Platformer Heater, identified as 300 - H1, H2, H3 with a maximum heat input rate of 70.3 MMBtu/hr, combusting refinery fuel gas, installed in 1992 and exhausting to stack 74. Under 40 CFR 63, Subpart UUU, process vents on the CCR are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the CCR Platformer Unit, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the CCR is considered an affected facility.
- (s) Two (2) sets of Oil/water Separators equipped with covers for VOC control, identified as 071. Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected sources at a petroleum refinery.
- (t) Cooling Towers, identified as 119. One of the cooling towers is associated with the DHT.
- (u) Process units made up of vessels, piping, exchangers, identified as PENEX. Under 40 CFR 60, Subpart GGG, equipment associated with the sampling connection system is considered an affected source at a petroleum refinery.
- (v) One (1) Hydrotreating Unit Reactor charge heater, identified as 210-H-100, with a maximum heat input rating of 30 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 122, constructed in 2005 and approved in 2014 for modification. Under 40 CFR 63, Subpart DDDDD and 40 CFR 60, Subpart Ja, the Hydrotreating Unit Reactor charge heater is considered an affected facility.
- (w) One (1) Hydrotreating Unit Reboiler Stabilizer, identified as 210-H-101, with a maximum heat input rating of 19.94 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 123 constructed in 2005. Under 40 CFR 60, Subpart J, the Hydrotreating Unit Reboiler Stabilizer, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Hydrotreating Unit Reboiler Stabilizer is considered an affected facility.
- (x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.
  - (1) One (1) Claus Unit Startup burner (SRU Burner 520-H-101), identified as 124-1, with a maximum heat input rating of 1.54 MMBtu per hour, combusting natural gas, and exhausting through one (1) stack identified as 124-1, constructed in 2005. Under 40 CFR 60, Subpart J, the Claus Unit Startup burner, is considered an affected facility.
  - (2) One (1) Tail Gas Treating Unit (TGTU) Incinerator burner (Claus Furnace 520-H-102), identified as 124-2, with a maximum heat input rating of 1.29 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a backup

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fuel, and exhausting through one (1) stack identified as 124-2, constructed in 2005. In the event of unscheduled shutdown of the CCR unit, the Sulfur Recovery Unit effluent will be routed directly to the TGTU incinerator. Under 40 CFR 60, Subpart J, the Tail Gas Treating Unit (TGTU) Incinerator burner, is considered an affected facility.

- (3) One (1) Tail Gas Treating Unit (TGTU) Incinerator (520-H-162), identified as 124-3, with a maximum process flow rate of 48,000 dry standard cubic feet per day, and exhausting through one (1) stack identified as 124-3, constructed in 2005.
- (4) One (1) Sour Flare (520-H-163), identified as 124-4, with a maximum burner capacity of 0.92 MMBtu per hour, and a maximum process flow rate of 200 standard cubic feet per hour, and exhausting through one (1) stack identified as 124-4, constructed in 2005. Under 40 CFR 60, Subpart J, the Sour Flare, is considered an affected facility by the Consent Decree as of March 31, 2013.
- (y) One (1) Vacuum heater, identified as 200-H6, with a maximum heat input rate of 5.49 MMBtu/hr, combusting refinery fuel gas and natural gas as a backup, installed in 2005 and exhausting to stack 126. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Vacuum heater is considered an affected facility.
- (z) One (1) boiler identified as B4, constructed in 2006, with a maximum heat input rate of 84.9 MMBtu/hr of process gas and/or natural gas, identified as B4 and exhausting to stack 131. Under 40 CFR 60, Subpart Dc, the boiler identified as boiler B4 above is considered an affected facility. Under 40 CFR Part 60, Subpart J, the boiler identified as boiler B4 above, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B4 is considered an affected facility.
- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.
  - (2) #5 Cooling Tower with a maximum capacity of 4,000 gpm approved for construction in 2008 and approved for modification in 2014.
  - (3) LSG Unit components and drains (800 valves, 16 drains, and 5 pumps) approved for construction in 2008. Under 40 CFR 63, Subpart CC, equipment leaks associated with a petroleum refinery are considered as an affected facility. Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery. Under 40 CFR 60, Subpart GGGa, valves are considered affected facilities at a petroleum refinery. Under 40 CFR 61 Subpart FF new and existing drains are considered affected facilities for benzene waste operations.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

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- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs:
  - (1) Cutting torches.
  - (2) Soldering equipment.
  - (3) Welding equipment.
- (c) Paved and unpaved roads and parking lots with public access.
- (d) Asbestos abatement projects regulated by 326 IAC 14-10.
- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
  - (1) One (1) diesel fired emergency generator, installed in 1967, identified as 700-P31 Golf Course pond pump, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (2) One (1) diesel fired emergency generator, installed in 1984, identified as 1000-P33B, with a maximum heat input of 240 hp (180 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (3) One (1) diesel fired emergency generator, installed in 2002, identified as Main Office Generator, with a maximum heat input of 50 hp (37 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (4) One (1) diesel fired emergency generator, installed in 2006, identified as 700-C8 Air Compressor, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (5) One (1) diesel fired emergency generator, installed in 2006, identified as 700-G2 Boilerhouse, with a maximum heat input of 393 hp (293 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). Under

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40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.

- (f) Stationary fire pump engines.
- (1) One (1) diesel fired emergency generator, installed in 1992, identified as 700-P32 No. 2 Fire Pond pump, with a maximum heat input of 302 hp (225 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
- (g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute as follows: Abrasive blasting.
- (h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:
- (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
  - (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
  - (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
  - (5) For nitrogen oxides (NO<sub>x</sub>), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (6) For PM<sub>10</sub> or direct PM<sub>2.5</sub>, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.
- (A) Pipeline Valves - Gas, identified as 090. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (B) Pipeline Valves - Light Liquid, identified as 091. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (C) Pipeline Valves - Heavy Liquid, identified as 092. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (D) Pipeline Valves - Hydrogen, identified as 093. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (E) Open Ended Valves, identified as 094. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (F) Flanges, identified as 095. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (G) Pump Seals Light Liquid, identified as 096. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (H) Pump Seals Heavy Liquid, identified as 097. Under 40 CFR 60, Subpart GGG this is an affected unit.
  - (I) Compressor Seals - Gas, identified as 098. Under 40 CFR 60, Subpart GGG this is an affected unit.



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- (J) Compressor Seals - Heavy Liquid, identified as 099. Under 40 CFR 60, Subpart GGG this is an affected unit.
- (K) Vessel Relief Valves, identified as 101. Under 40 CFR 60, Subpart GGG this is an affected unit.
- (L) Fugitive emissions from the Hydrotreater unit, Amine Unit, Sulfur Recovery Unit, Tail Gas Treatment Unit consisting of: Under 40 CFR 60, Subpart GGG this is an affected unit. Under 40 CFR 63, Subpart CC this is an affected unit.
  - (1) pipeline Valves - Gas, identified as 090;
  - (2) pipeline Valves - Light Liquid, identified as 091;
  - (3) pipeline Valves - Heavy Liquid, identified as 092;
  - (4) pipeline Valves - Hydrogen, identified as 093;
  - (5) open Ended Valves, identified as 094;
  - (6) Miscellaneous (Sampling, Blowing, Purging, etc.), identified as 073;
  - (7) flanges, identified as 095;
  - (8) pump Seals Light Liquid, identified as 096;
  - (9) pump Seals Heavy Liquid, identified as 097;
  - (10) compressor Seals - Gas, identified as 098;
  - (11) compressor Seals - Heavy Liquid, identified as 099;
  - (12) drains, identified as 100; and
  - (13) vessel Relief Valves, identified as 101.
- (M) One (1) Miscellaneous operation (Sampling, Blowing, Purging, etc.), identified as 073. Under 40 CFR 60, Subpart QQQ this is an affected unit.
- (N) Drains, identified as 100. Under 40 CFR 60, Subpart QQQ this is an affected unit.

A.5 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Combustion related activities, including the following:
  - (1) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:
    - (A) Propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
  - (2) Combustion source flame safety purging on startup.
- (b) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less.
- (c) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
  - (2) Vessels storing the following:
    - (A) Hydraulic oils.

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- (A) Lubricating oils.
- (d) Cleaners and solvents characterized as having a vapor pressure equal to or less than:
  - (1) two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or
  - (2) seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit); the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.
- (e) Water based activities, including the following:
  - (1) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume.
  - (2) Noncontact cooling tower systems with the following:
    - (A) Forced and induced draft cooling tower systems not regulated under a NESHAP.
- (f) Repair activities, including the following:
  - (1) Heat exchanger cleaning and repair.
  - (2) Process vessel degassing and cleaning to prepare for internal repairs.
- (g) Routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process, including the following:
  - (1) Purging of gas lines.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:
  - (1) Catch tanks.
  - (2) Temporary liquid separators.
  - (3) Tanks.
  - (4) Fluid handling equipment.
- (i) Blowdown for the following:
  - (1) Sight glass.
  - (2) Boiler.
  - (3) Cooling tower.
  - (4) Compressors.
  - (5) Pumps.
- (j) Activities associated with emergencies as follows:
  - (1) On-site fire training approved by IDEM.
- (k) Purge double block and bleed valves.
- (l) Filter or coalescer media changeout.

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- (m) Emissions from a laboratory as defined in 2-7-1(21)(D).
- (n) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:
  - (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
  - (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
  - (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
  - (5) For nitrogen oxides (NO<sub>x</sub>), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (6) For PM<sub>10</sub> or direct PM<sub>2.5</sub>, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.
- (A) RCRA regulated units including land farm maintenance, waste generation units and other related hazardous waste activities;
- (B) tank cleaning;
- (C) product transfer, loading and unloading operations not otherwise listed;
- (D) crude oil tank truck unloading- two stations;
- (E) butane truck unloading -three stations;
- (F) propane truck unloading;
- (G) butane railroad car unloading;
- (H) no. 6 oil unloading;
- (I) asphalt railroad car loading;
- (J) butane pipeline tenders;
- (K) natural gasoline pipeline tenders;
- (L) crude oil pipeline tenders;
- (M) process unit TURNAROUND maintenance and cleaning activities;
- (N) initial charging or firing of process units, flares or other regulated equipment for which reporting is not required or made;
- (O) tank water draining;
- (P) chemical addition for corrosion protection, defoaming, finished products, flow enhancement, fouling, pH control, and other purposes in boilers, process equipment, waste water operations, cooling towers and other refinery equipment;
- (Q) catalyst handling;
- (R) mechanical Equipment (Cranes, forklifts, etc.);
- (S) plant Traffic (Pumpers, Gauges and etc.);
- (T) operation of the Lime Scrubber;
- (U) neutralization pit operations;
- (V) one (1) Riverview Crude Oil Storage Tank, used as a backup, constructed in 1973, located at 500 Old Highway 69, Mt. Vernon IN 47620 with a maximum capacity of 80,000 bbl/year and a maximum throughput of 400,000 bbl/year, storing crude oil.
- (W) One (1) Miscellaneous operation (Sampling, Blowing, Purging, etc.), identified as 073;
- (X) Drains, identified as 100.
- (Y) maintenance painting on tanks and other equipment.
- (Z) Sulfur storage and loading

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(AA) Amine tank and amine sump

(BB) Storage and transfer of fresh and spent caustic (Sodium Hydroxide and Potassium Hydroxide)

A.6 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);

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**SECTION B****GENERAL CONDITIONS****B.1 Definitions [326 IAC 2-7-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

**B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]**

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- (a) This permit, T129-35008-00003, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

**B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

**B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]**

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

**B.5 Severability [326 IAC 2-7-5(5)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

**B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]**

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

**B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]**

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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**B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

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- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:
- Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- and
- United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590
- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]**

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- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance

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causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Emergency Provisions [326 IAC 2-7-16]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or

Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)

Facsimile Number: 317-233-6865

Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;



(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

#### B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable

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requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]**


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- (a) All terms and conditions of permits established prior to T129-35008-00003 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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**B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]**


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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

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**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
**[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]**

- 
- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

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document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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**B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]**


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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]
- (c) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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**B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]**


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- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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**B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]**


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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;

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- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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- (c) **Emission Trades [326 IAC 2-7-20(c)]**  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) **Alternative Operating Scenarios [326 IAC 2-7-20(d)]**  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) **Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.**
- (f) **This condition does not apply to emission trades of SO<sub>2</sub> or NO<sub>x</sub> under 326 IAC 21 or 326 IAC 10-4.**

**B.20 Source Modification Requirement [326 IAC 2-7-10.5]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

**B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.24 Advanced Source Modification Approval [326 IAC 2-7-5(15)][326 IAC 2-7-10.5]**

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- (a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

**B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]**

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For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

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## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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**Emission Limitations and Standards [326 IAC 2-7-5(1)]****C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.3 Open Burning [326 IAC 4-1][IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.4 Incineration [326 IAC 4-2][326 IAC 9-1-2]**

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.6 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

**C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]**

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of



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326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

**Testing Requirements [326 IAC 2-7-6(1)]****C.8 Performance Testing [326 IAC 3-6]**

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

**Compliance Requirements [326 IAC 2-1.1-11]****C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]****C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

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- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:  
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

**C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]****C.12 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.13 Risk Management Plan [326 IAC 2-7-5(11)][40 CFR 68]**

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

**C.14 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]**

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Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;

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- (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]****C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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Indiana Department of Environmental Management  
 Technical Support and Modeling Section, Office of Air Quality  
 100 North Senate Avenue  
 MC 61-50 IGCN 1003  
 Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2][326 IAC 2-3]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

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- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
  - (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
  - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
  - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2][326 IAC 2-3]

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

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Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for

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review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

**Stratospheric Ozone Protection****C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**


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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

**C.20 Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Definitions**


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As specified by the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, the following definitions shall apply to sections C.19 - Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Definitions, C.20 - Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Force Majeure, D.2.2 - Standards of Performance for Petroleum Refineries [326 IAC 12][40 CFR 60, Subpart J][326 IAC 2-7-10.5], D.2.3 - Standards of Performance for Petroleum Refineries [326 IAC 12][40 CFR 60, Subpart Ja][326 IAC 2-7-10.5], D.2.4 - Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Requirements [326 IAC 2-7-10.5], D.2.5 - Consent Decree Requirements [326 IAC 2-7-10.5], D.2.7 - Continuous Emissions Monitoring [326 IAC 3-5][326 IAC 2-7-6(1),(6)][40 CFR 60, Subpart Ja], D.2.8 - Continuous Opacity Monitoring [326 IAC 3-5][326 IAC 2-7-6(1),(6)][40 CFR 60, Subpart Ja], D.5.5 - Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Requirements, D.5.6 - Consent Decree Requirements [326 IAC 2-7-10.5], D.5.7- Consent Decree Requirements [326 IAC 2-7-10.5] – Main Flare, D.5.8 - Standards of Performance for Petroleum Refineries [326 IAC 12][40 CFR 60, Subpart J][40 CFR 60, Subpart Ja][326 IAC 2-7-10.5], D.5.11 - NOx Limitation Averaging Time and Monitoring Requirements, D.5.12 - Continuous Emissions Monitoring [326 IAC 3-5][326 IAC 2-7-6(1),(6)][40 CFR 60, Subpart Db], Section E.3 - 40 CFR Part 60, Subpart J, and E.12 - 40 CFR Part 60, Subpart Ja of the permit:

- (a) “7-day rolling average” shall mean the average daily emission rate or concentration during the preceding 7 days. For purposes of clarity, the first day used in a 7-day rolling average compliance period is the first day on which the emissions limit is effective and the first complete 7-day average compliance period is 7 days later (e.g., for a limit effective on January 1, the first day in the period is January 1 and the first complete 7-day period is January 1 through January 7).
- (b) “365-day rolling average” shall mean the average daily emission rate or concentration during the preceding 365 days. For purposes of clarity, the first day used in a 365-day rolling average compliance period is the first day on which the emissions limit is effective and the first complete 365-day average compliance period is 365 days later (e.g., for a limit effective on January 1, the first day in the period is January 1 and the first complete 365-day period is January 1 through December 31).
- (c) “12-month rolling average” shall mean the sum of the average rate or concentration of the pollutant in question for the most recent complete calendar month and each of the previous 11 calendar months, divided by 12. A new 12-month rolling average shall be calculated for each new complete month. For purposes of clarity, the first month used in a 12-month rolling average compliance period is the first full calendar month in which the emission limits is effective, and the first complete 12-month rolling average compliance period is 12 calendar months later (e.g., for a limit effective on December 31, the first month in the period is January and the first complete 12-month period is January through the following December).
- (d) “Calendar Quarter” shall mean any one of the three month periods ending on March 31st, June 30th, September 30th, and December 31st.



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- (e) "CEMS" shall mean a continuous emissions monitoring system.
- (f) "CO" shall mean carbon monoxide.
- (g) "Combustion Units" shall mean the heaters and boilers at the Refinery that are listed in Appendix A.
- (h) "Consent Decree" or "Decree" or "CD" shall mean the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH, including any and all Appendices attached to the body of the Consent Decree.
- (i) "Co-Plaintiff" or "Indiana" shall mean the State of Indiana on behalf of the Indiana Department of Environmental Management.
- (j) "CountryMark" shall mean CountryMark Refining and Logistics, LLC, and its successors and assigns.
- (k) "Covered Flare" shall mean the Main Flare at the Refinery; the Main Flare is an Elevated, Steam-Assisted Flare utilizing only Upper Steam.
- (l) "Current Generation Ultra-Low NOx Burners" shall mean those burners that are designed to achieve a NOx emission rate of 0.020 to 0.040 lb NOx/MMBtu (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.040 lb NOx/MMBtu (HHV).
- (m) "Date of Entry of the Consent Decree" or "Date of Entry" shall mean the date the Consent Decree is entered by the United States District Court for the Southern District of Indiana.
- (n) "Date of Lodging of the Consent Decree" or "Date of Lodging" or "DOL" shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Southern District of Indiana.
- (o) "Day" or "Days" as used herein shall mean a calendar day or days.
- (p) "EPA" shall mean the United States Environmental Protection Agency and any of its successors departments or agencies.
- (q) "FCCU" shall mean the fluidized catalytic cracking unit and its regenerator that CountryMark owns and/or operates at the Mt. Vernon Refinery.
- (r) "Flare" shall mean a combustion device that uses an uncontrolled volume of ambient air to burn gases.
- (s) "Fuel Oil" shall mean any liquid fossil fuel with a sulfur content of greater than 0.05% by weight.
- (t) "IDEM" shall mean the Indiana Department of Environmental Management and any successor departments or agencies of the State of Indiana.
- (u) "Malfunction" shall mean, as specified in 40 C.F.R. Part 60.2, "any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions."

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- (v) "Month":
- (1) Whenever the Consent Decree requires compliance "within" or "by no later than" a certain number of "Months" after a specific date or event, the compliance obligation commences on the anniversary of the numerical date of that specific date or event. For example, if compliance is required by no later than six Months after the Effective Date of the Decree, and if the Effective Date of the Decree is December 6, 2012, then the compliance obligation commences on June 6, 2013.
- (2) "Month" or "monthly" for any purpose other than that identified in Subparagraph 10.t.i of the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH shall mean calendar month.
- (w) "Natural Gas Curtailment" shall mean a restriction imposed by a natural gas supplier limiting CountryMark's ability to obtain or use natural gas.
- (x) "Next Generation Ultra-Low NOx Burners" or "Next Generation ULNBs" shall mean those burners that are designed to achieve a NOx emission rate of less than or equal to 0.020 lb NOx/MMBtu (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.020 lb NOx/MMBtu(HHV).
- (y) "NOx" shall mean nitrogen oxides.
- (z) "Paragraph" shall mean a portion of the Consent Decree identified by an Arabic numeral.
- (aa) "Parties" shall mean the United States, Indiana, and CountryMark.
- (bb) "PM" shall mean particulate matter as measured by 40 CFR Part 60, Appendix A, Method 5B or 5F.
- (cc) "Refinery" or "Mt. Vernon Refinery" shall mean the Refinery owned and operated by CountryMark in Mt. Vernon, Indiana, which is subject to the requirements of the Consent Decree.
- (dd) "Selective Catalytic Reduction" or "SCR" shall mean an air pollution control device consisting of ammonia injection and a catalyst bed to selectively catalyze the reduction of NOx with ammonia to nitrogen and water.
- (ee) "Selective Non-Catalytic Reduction" or "SNCR" shall mean an air pollution control device consisting of a reactant injection system using ammonia or urea to selectively reduce NOx to nitrogen and water and may include an enhanced reactant such as hydrogen.
- (ff) "Shutdown," as specified in 40 C.F.R. Section 60.2, shall mean the cessation of operation of an affected facility for any purpose.
- (gg) "SO2" shall mean sulfur dioxide.
- (hh) "Smoke Emissions" shall have the definition set forth in Section 3.5 of Method 22 of 40 C.F.R. Part 60, Appendix A. Smoke Emissions may be documented by either a person certified pursuant to Method 22 or by a video camera.
- (ii) "Startup," as specified in 40 C.F.R. Section 60.2, shall mean the setting in operation of an affected facility for any purpose.

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- (jj) "Sulfur Flare" shall mean the Elevated Flare associated with the Sulfur Recovery Unit at the Refinery that CountryMark designates as 520-H-163.
- (kk) "Sulfur Recovery Plant" or "SRP" shall mean a process unit that recovers sulfur from hydrogen sulfide by a vapor phase catalytic reaction of sulfur dioxide and hydrogen sulfide.
- (ll) "Sulfur Recovery Unit" or "SRU" shall mean a single component of a Sulfur Recovery Plant, commonly referred to as a Claus train.
- (mm) "Tail Gas" shall mean exhaust gas from the Claus trains and the tail gas unit ("TGU") section of the SRP.
- (nn) "Tail Gas Unit" or "TGU" shall mean a control system utilizing a technology for reducing emissions of sulfur compounds from a Sulfur Recovery Plant.
- (oo) "Torch Oil" shall mean FCCU feedstock or cycle oils that are combusted in the FCC regenerator to assist in starting up or restarting the FCCU, to allow hot standby of the FCCU, or to maintain regenerator heat balance in the FCCU.
- (pp) "Upstream Process Units" shall mean all amine contactors, amine regenerators, and sour water strippers at the Refinery, as well as all process units at the Refinery that produce gaseous or aqueous waste streams that are processed at amine contactors, amine scrubbers, or sour water strippers.
- (qq) "Visible Emissions" for the flares shall mean five minutes or more of Smoke Emissions during any two consecutive hours. For purposes of Appendix B of the Consent Decree, Visible Emissions may be documented by either a person certified pursuant to Method 22 or by a video camera.

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C.21 Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Force Majeure

- (a) "Force Majeure," for purposes of the Consent Decree, is defined as any event beyond the control of CountryMark, its contractors, or any entity controlled by CountryMark that delays the performance of any obligation under the Consent Decree despite CountryMark's best efforts to fulfill the obligation. The requirement that CountryMark exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential Force Majeure event and best efforts: (a) to address the effects of any such event as it is occurring; and (b) to prevent or minimize any resulting delay after the event has occurred.
- (b) "Force Majeure" does not include CountryMark's financial inability to perform any obligation under the Consent Decree. Unanticipated or increased costs or expenses associated with the performance of CountryMark's obligations under the Consent Decree shall not constitute circumstances beyond CountryMark's control nor serve as the basis for an extension of time under this Section XIII of the Consent Decree.
- (c) If any event occurs or has occurred that may delay the performance of any obligation under the Consent Decree, whether or not caused by a Force Majeure event, CountryMark shall notify EPA and IDEM in writing not later than fifteen (15) calendar days after the time CountryMark first knew or should have known by the exercise of due diligence that the event might cause a delay. In the written notice, CountryMark shall specifically reference Consent Decree Paragraph 169 of the Consent Decree and shall provide an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay

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or the effect of the delay; CountryMark's rationale for attributing such delay to a Force Majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of CountryMark, such event may cause or contribute to an endangerment to public health, welfare, or the environment. CountryMark shall be deemed to know of any circumstance of which CountryMark, any entity controlled by CountryMark, or CountryMark's contractors knew or should have known. CountryMark shall include with any notice all available documentation supporting the claim that the delay was attributable to a Force Majeure. The written notice required by this condition shall be effective upon the mailing of the same by overnight mail or by certified mail, return receipt requested, to EPA in the manner set forth in Section XI of the Consent Decree (Notices).

- (d) Failure by CountryMark to comply with the requirements in Consent Decree Paragraph 169 shall preclude CountryMark from asserting any claim of Force Majeure for the event for the period of time of such failure to comply, and for any additional delay caused by such failure.
- (e) If EPA, after consultation with IDEM, agrees that the delay or anticipated delay is attributable to a Force Majeure event, the time for performance of the obligations under the Consent Decree and the corresponding Part 70 permit condition that are affected by the Force Majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify CountryMark in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event.
- (f) If EPA, after consultation with IDEM, does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, or if the EPA, after consultation with IDEM, and CountryMark fail to agree on the length of the delay attributable to the Force Majeure event, EPA will notify CountryMark of its decision.
- (g) If CountryMark elects to invoke the dispute resolution procedures set forth in Consent Decree Section XIV (Dispute Resolution), it shall do so no later than 45 days after receipt of EPA's notice. In any such proceeding, CountryMark shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that CountryMark complied with the requirements of Consent Decree Paragraphs 167 and 169. If CountryMark carries this burden, the delay at issue shall be deemed not to be a violation by CountryMark of the affected obligation of this Consent Decree identified to EPA and the Court.
- (h) Notwithstanding any other provision of the Consent Decree, the Parties do not intend that CountryMark's serving of a Force Majeure notice or the Parties' inability to reach agreement shall cause the reviewing Court to draw any inferences nor establish any presumptions adverse to any Party.

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## SECTION D.1

## FACILITY OPERATION CONDITIONS

**Emission Unit Description:**

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.
  - (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (v) One (1) Hydrotreating Unit Reactor charge heater, identified as 210-H-100, with a maximum heat input rating of 30 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 122, constructed in 2005 and approved in 2014 for modification.
- Under 40 CFR 63, Subpart DDDDD and 40 CFR 60, Subpart Ja, the Hydrotreating Unit Reactor charge heater is considered an affected facility.
- (w) One (1) Hydrotreating Unit Reboiler Stabilizer, identified as 210-H-101, with a maximum heat input rating of 19.94 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 123 constructed in 2005. Under 40 CFR 60, Subpart J, the Hydrotreating Unit Reboiler Stabilizer, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Hydrotreating Unit Reboiler Stabilizer is considered an affected facility.
- (x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.
- (1) One (1) Claus Unit Startup burner (SRU Burner 520-H-101), identified as 124-1, with a maximum heat input rating of 1.54 MMBtu per hour, combusting natural gas, and exhausting through one (1) stack identified as 124-1, constructed in 2005. Under 40 CFR 60, Subpart J, the Claus Unit Startup burner, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Claus Unit Startup burner is considered an affected facility.
  - (2) One (1) Tail Gas Treating Unit (TGTU) Incinerator burner (Claus Furnace 520-H-102), identified as 124-2, with a maximum heat input rating of 1.29 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a backup fuel, and exhausting through one (1) stack identified as 124-2, constructed in 2005. In the event of unscheduled shutdown of the CCR unit, the Sulfur Recovery Unit effluent will be routed directly to the TGTU incinerator. Under 40 CFR 60, Subpart J, the Tail Gas Treating Unit (TGTU) Incinerator burner, is considered an affected facility. Under 40 CFR 63, Subpart

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DDDDD, the Tail Gas Treating Unit (TGTU) Incinerator burner is considered an affected facility.

- (3) One (1) Tail Gas Treating Unit (TGTU) Incinerator (520-H-162), identified as 124-3, with a maximum process flow rate of 48,000 dry standard cubic feet per day, and exhausting through one (1) stack identified as 124-3, constructed in 2005.
- (4) One (1) Sour Flare (520-H-163), identified as 124-4, with a maximum burner capacity of 0.92 MMBtu per hour, and a maximum process flow rate of 200 standard cubic feet per hour, and exhausting through one (1) stack identified as 124-4, constructed in 2005. Under 40 CFR 60, Subpart J, the Sour Flare, is considered an affected facility by the Consent Decree as of March 31, 2013.
- (y) One (1) Vacuum heater, identified as 200-H6, with a maximum heat input rate of 5.49 MMBtu/hr, combusting refinery fuel gas and natural gas as a backup, installed in 2005 and exhausting to stack 126. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Vacuum heater is considered an affected facility.
- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.
  - (2) #5 Cooling Tower with a maximum capacity of 4,000 gpm approved for construction in 2008 and approved for modification in 2014.
  - (3) LSG Unit components and drains (800 valves, 16 drains, and 5 pumps) approved for construction in 2008. Under 40 CFR 63, Subpart CC, equipment leaks associated with a petroleum refinery are considered as an affected facility. Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery. Under 40 CFR 60, Subpart GGGa, valves are considered affected facilities at a petroleum refinery. Under 40 CFR 61 Subpart FF new and existing drains are considered affected facilities for benzene waste operations.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

#### **D.1.1 Particulate Matter (PM) [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the LSG Charge Reactor Heater shall be limited to 0.26 pounds per MMBtu heat input.

#### **D.1.2 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the FCCU shall not exceed 44.30 pounds per hour when operating at a maximum process weight of 48.559 tons per hour.

The pounds per hour limitations were calculated using the following equation:

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Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

D.1.3 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart J] [326 IAC 2-7-10.5]

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- (a) As required by Paragraph 17 and B.38 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:
- (1) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the FCCU catalyst regenerator shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of 40 CFR 60, Subparts A and J and specified in Section E.3 for SO<sub>2</sub>, and CO applicable to the FCCU. Entry of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and compliance with the relevant monitoring requirements of Civil 3:13-CV-00030-RLY-WGH for the FCCU shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirement of 40 CFR 60.8(a).
- (2) By no later than March 31, 2013, the Sulfur Flare shall be an "affected facility" as that term is used in the NSPS at Subparts A and J, and shall be subject to and comply with the requirements of Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements. Consistent with language in 40 C.F.R. § 60.104(a)(1) at the time of the Lodging of this Decree, the combustion in the Sulfur Flare of process upset gases or fuel gas that is released to the Sulfur Flare as a result of relief valve leakage or other emergency malfunctions is exempt from the emissions limit in 40 C.F.R. § 60.104(a)(1). To the extent that the exemption in 40 C.F.R. § 60.104(a)(1) identified in the preceding sentence is amended at any time during the duration of this Consent Decree, the amended language shall apply and not the language in the preceding sentence. In lieu of a monitoring by means of a CEMS, CountryMark, prior to the Lodging of this Consent Decree, submitted an Alternative Monitoring Plan to EPA Region 5 for approval. EPA approved the AMP.
- (b) As required by Paragraph 17 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, by no later than December 31, 2017, the FCCU catalyst regenerator shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of 40 CFR 60, Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements, and specified in Section E.3 for PM applicable to the FCCU catalyst regenerator.

D.1.4 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]

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As required by Paragraph 18 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to the termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the FCCU becomes subject to 40 CFR Part 60, Subpart Ja, due to a "modification" (as that term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for that regulated pollutant to which a standard applies as a result of the modification.

**D.1.5 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]**

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As required by Paragraphs 39, 40, 41, and 43 of the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:

- (a) By no later than June 30, 2013, the Sulfur Recovery Plant shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and Ja, for all pollutants applicable to SRPs, and shall be subject to and comply with the requirements of Subparts A and Ja, including all monitoring, recordkeeping, reporting, and operating requirements. Entry of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and compliance with the relevant monitoring requirements of Civil 3:13-CV-00030-RLY-WGH for the SRP shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirement of 40 CFR 60.8(a).
- (b) At all times on and after the date of NSPS applicability for the SRP, the Permittee shall, for all periods of operation of the SRP, comply with 40 CFR § 60.102a(f)(2)(i), except during periods of Startup, Shutdown or Malfunction of the SRP or Malfunction of the Tail Gas Unit.
- (c) At all times on and after the date of NSPS applicability for the SRP, including periods of Startup, Shutdown, and Malfunction, the Permittee shall, to the extent practicable, operate and maintain the SRP and associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions as required by 40 CFR § 60.11(d).
- (d) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall, for the SRP monitor all Tail Gas emission points (stacks) to the atmosphere and install and operate an NSPS-compliant CEMS in accordance with NSPS Subpart Ja.

**D.1.6 Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Requirements [326 IAC 2-7-10.5]**

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As required by Paragraphs 11, 12, 14, 15, 21, and 42 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:

- (a) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the emissions of NO<sub>x</sub> from the FCCU shall not exceed 30 ppmvd @ 0% O<sub>2</sub> based on a "365-day rolling average" and 50 ppmvd NO<sub>x</sub> @ 0% O<sub>2</sub> based on a "7-day rolling average".
- (b) NO<sub>x</sub> emissions during periods of Startup, Shutdown, or Malfunction of the FCCU or during periods of Malfunction of the FCCU's catalyst additive system shall not be used in determining compliance with the "7-day rolling average" NO<sub>x</sub> emission limits required by the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH at the FCCU, provided that during such periods the Permittee implements good air pollution control practices as required by 40 CFR 60.11(d) to minimize NO<sub>x</sub> emissions at the FCCU.  
  
NO<sub>x</sub> emissions during periods of Startup, Shutdown, or Malfunction shall be used in determining compliance with the "365-day rolling average" NO<sub>x</sub> emission limits required by the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH at the FCCU.
- (c) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the emissions of SO<sub>2</sub> from the FCCU shall not exceed 25 ppmvd @ 0% O<sub>2</sub> based on a "365-day rolling average" and 50 ppmvd @ 0% O<sub>2</sub> based on a "7-day rolling average".



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- (d) SO<sub>2</sub> emissions during periods of Startup, Shutdown, or Malfunction shall not be used in determining compliance with the "7-day rolling average" SO<sub>2</sub> emission limits at the FCCU, provided that during such periods the Permittee implements good air pollution control practices as required by 40 CFR 60.11(d) to minimize SO<sub>2</sub> emissions at the FCCU.

SO<sub>2</sub> emissions during periods of Startup, Shutdown, or Malfunction shall be used in determining compliance with the "365-day rolling average" SO<sub>2</sub> emission limits required by the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH at the FCCU.

- (e) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the emissions of CO from the FCCU shall not exceed 500 ppmvd on a 1-hour average basis corrected to 0% O<sub>2</sub>.
- (f) CO emissions during periods of Startup, Shutdown, or Malfunction shall not be used in determining compliance with the 1-hour 500 ppmvd emission limit, provided that during such periods the Permittee implements good air pollution control practices to minimize CO emissions from the FCCU.
- (g) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall for the SRP either eliminate, control, and/or include and monitor as part of a the SRP's emissions, all sulfur tank emissions.

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**D.1.7 Consent Decree Requirements [326 IAC 2-7-10.5]**

As required by Paragraph 38 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:

- (a) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall not burn Fuel Oil in any existing combustion device except during periods of Natural Gas Curtailment, Test Runs, or operator training. Nothing in this prohibition limits the Permittee's ability to burn Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.
- (b) After the "Date of Lodging" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall not construct any new combustion device that burns Fuel Oil unless the air pollution control equipment controlling the combustion device either:
- (1) has an SO<sub>2</sub> control efficiency of 90% or greater; or
  - (2) achieves an SO<sub>2</sub> concentration of 20 ppm or less at 0% O<sub>2</sub> on a 3-hour rolling average basis.

Nothing in this Condition exempts the Permittee from securing all necessary permits before constructing a new combustion device.

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**D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements****D.1.9 Particulate Control**


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In order to ensure compliance with Condition D.1.2, the electrostatic precipitator (500-ESP-101) for particulate control shall be in operation and control emissions from the FCCU regenerator facility at all times the FCCU regenerator is in operation.

**D.1.10 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 60, Subpart J] [40 CFR 60, Subpart Ja]**

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- (a) As required by Paragraphs 16, 23, and 13 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, by no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall use NO<sub>x</sub>, SO<sub>2</sub>, CO, and O<sub>2</sub> CEMS to demonstrate compliance with the NO<sub>x</sub>, CO, and SO<sub>2</sub> limits in Condition D.1.4 and D.1.5. The Permittee shall install, certify, calibrate, maintain and operate the NO<sub>x</sub>, SO<sub>2</sub>, CO and O<sub>2</sub> CEMS for the FCCU in accordance with the provisions of 40 CFR 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 CFR Part 60 Appendix B. However, unless Appendix F is required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 CFR Appendix F 5.1.1, 5.1.3, and 5.1.4, the Permittee may conduct: (1) either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) once every three years; and (2) a Cylinder Gas Audit (CGA) each calendar quarter in which a RAA or RATA is not performed. If the CEMS must be moved because of the installation of control equipment, the Permittee shall promptly reinstall, re-calibrate, and re-certify the CEMS.
  - (b) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for SRP shall be calibrated, maintained, and operated for measuring SO<sub>2</sub> and O<sub>2</sub>, which meet all applicable performance specifications of 326 IAC 3-5-2.
  - (c) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for FCCU shall be calibrated, maintained, and operated for measuring PM, NO<sub>x</sub>, SO<sub>2</sub>, CO, and O<sub>2</sub>, which meet all applicable performance specifications of 326 IAC 3-5-2.
  - (d) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for NSPS J and Ja fuel gas combustion devices Hydrotreating Unit Reactor charge heater 210-H-100, Hydrotreating Unit Reboiler Stabilizer 210-H-101, Claus Unit Startup Burner 520-H-101, TGTU Incinerator burner 520-H-102, Vacuum Heater, 200-H6, and LSG Charge Heater, 810-H101 shall be calibrated, maintained, and operated for measuring hydrogen sulfide, which meet all applicable performance specifications of 326 IAC 3-5-2.
  - (e) All continuous emissions monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
  - (f) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60, Subpart J, and 40 CFR 60, Subpart Ja.

**D.1.11 Continuous Opacity Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 60, Subpart J]**

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- (a) As required by Paragraph 24 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, by no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall use the Continuous Opacity Monitoring System (COMS) to demonstrate compliance with the

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NSPS opacity limit at 40 CFR Part 60.102(a)(2). The Permittee shall install, certify, calibrate, maintain and operate the COMS for the FCCU in accordance with 40 CFR Part 60.11, 60.13 and Part 60, Appendix A, and the applicable performance specification test of 40 CFR Part 60, Appendix B.

- (b) The Permittee shall calibrate, certify, operate, and maintain a continuous monitoring system and related equipment to measure opacity from the FCCU stack in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.
- (c) The Permittee shall record the output of the continuous monitoring system(s) and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart J.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]****D.1.12 PM, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO and O<sub>2</sub> Continuous Emissions Monitoring (CEMS) Equipment Downtime**

- (a) In the event that a breakdown of a PM, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO and O<sub>2</sub> continuous emissions monitoring system (CEMS) occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.
- (b) Whenever a PM continuous emissions monitoring system (CEMS) is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup PM CEMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary PM CEMS, the Permittee shall comply with the following:
  - (1) Visible emission notations of ESP (500-ESP-101) stack exhausts shall be performed. A trained employee shall record whether emissions are normal or abnormal.
  - (2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
  - (3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
  - (4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (5) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.
- (c) Parametric monitoring shall begin not more than twenty-four (24) hours after the start of the malfunction or down time at least twice per day during normal daylight operations, with at least four (4) hours between each set of readings, until a PM -CEMS is online.

**DRAFT****D.1.13 Maintenance of COMS [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]**

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The Permittee shall comply with the following:

- (a) The COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.
- (b) In the event that a breakdown of the COMS occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.
- (c) Whenever the COMS is malfunctioning or down for maintenance, or repairs for more than twenty-four (24) hours during FCCU operation, the Permittee shall provide a certified opacity reader to take visible emission readings from the FCCU stack.
  - (1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the COMS malfunction or down time.
  - (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least once per day during daylight operations, until the COMS is placed back in service.
  - (3) Method 9 readings may be discontinued once a COM is online.
  - (4) If abnormal emissions are observed, the Permittee shall take a reasonable response. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition.
  - (5) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]****D.1.14 Record Keeping Requirements [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]**

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- (a) The Permittee shall record the output of the continuous monitoring systems ppmvd and shall perform the required record keeping pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (b) In the event that a breakdown of the PM, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO or O<sub>2</sub> continuous emission monitoring systems (CEMS) occurs, the Permittee shall maintain records of all CEMS malfunctions, out of control periods, calibration and adjustment activities, and repair or maintenance activities.
- (c) To document the compliance status with opacity Conditions D.1.11 and D.1.13, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits in Conditions D.1.3, D.1.5, and D.1.6.
  - (1) Data and results from the most recent stack test.
  - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6.

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- (3) The results of all Method 9 visible emission readings taken during any periods of COM downtime.
- (4) All multiclone and baghouse parametric monitoring readings.
- (d) To document the compliance status with Condition D.1.11, the Permittee shall maintain records of visible emission notations of the baghouse(s) stack exhausts. The Permittee shall include in its record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (e) Pursuant to 326 IAC 7-2-1(c)(3), the source shall maintain records as follows for the Fluidized Catalytic Cracking Unit (FCCU): calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu.
- (f) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.15 Reporting Requirements [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]

- (a) The Permittee shall prepare and submit to IDEM, OAQ a written report of the results of the calibration gas audits and relative accuracy test audits for each calendar quarter within thirty (30) calendar days after the end of each quarter. The report must contain the information required by 326 IAC 3-5-5(e)(2).

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
  - (1) date of downtime;
  - (2) time of commencement;
  - (3) duration of each downtime;
  - (4) reasons for each downtime; and
  - (5) nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) A quarterly report of opacity exceedances shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) Pursuant to 326 IAC 7-2-1(c)(3), the source shall submit reports for the Fluidized Catalytic Cracking Unit (FCCU) of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

**SECTION D.2 FACILITY OPERATION CONDITIONS****Emission Unit Description:**

- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:

(1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (2) Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.

- (3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.

- (d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
1	fixed roof cone tank	404,418	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	075;
2	fixed roof cone tank	404,502	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	076;
3	fixed roof cone tank	404,334	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	077;
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134

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4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135
5	fixed roof cone tank	120,456	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	019;
6	fixed roof cone tank	120,456	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	020;
7	fixed roof cone tank	126,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	078;
8	fixed roof cone tank	126,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	079;
9	fixed roof cone tank	204,204	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	023;
10	fixed roof cone tank	121,590	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	024;
11A	fixed roof cone tank	8,820	168,000	oil water / mixture	1972	40 CFR 63, Subpart CC	080;
11B	fixed roof cone tank	8,820	168,000	oil water / mixture	1972	40 CFR 63, Subpart CC	081;
12	fixed roof cone tank	6,090	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1988	40 CFR 63, Subpart CC	082;
15	fixed roof cone tank	24,654	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1941	40 CFR 63, Subpart CC	083;
18	internal floating roof tank/mechanical primary seal	1,052,013	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2003	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
19	fixed roof cone tank/internal floating roof tank/mechanical primary seal	616,938	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	032;
21	fixed roof cone tank	1,002,750	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1941	40 CFR 63, Subpart CC	034;
22A	fixed roof cone tank	1,050,000	84,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2003	40 CFR 63, Subpart CC	120;
22B	fixed roof cone tank/insulated/ heated cone tank	1,050,000	16,800	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2006	40 CFR 63, Subpart CC	127;

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24	fixed roof cone tank/internal floating roof tank/mechanical primary seal	588,714	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1985	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
25	fixed roof cone tank/internal floating roof tank/mechanical primary seal	656,614	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	038;
26	fixed roof cone tank/internal floating roof tank/mechanical primary seal	1,006,068	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1941	40 CFR 63, Subpart CC	039;
33	fixed roof cone tank	2,262,960	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	085;
34	fixed roof cone tank	984,480	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	045;
35	fixed roof cone tank	997,962	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	046;
36	fixed roof cone tank	2,261,954	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	047;
37	fixed roof cone tank	2,247,126	210,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1946	40 CFR 63, Subpart CC	048;
38	fixed roof cone tank	2,248,386	210,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1948	40 CFR 63, Subpart CC	049;;
39	fixed roof cone tank	2,250,234	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1948	40 CFR 63, Subpart CC	050;
40	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,222,388	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1949	40 CFR 63, Subpart CC	051;
41	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,204,244	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1949	40 CFR 63, Subpart CC	052;
42	fixed roof cone tank	2,261,574	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1950	40 CFR 63, Subpart CC	053;
43	fixed roof cone tank	2,254,098	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1951	40 CFR 63, Subpart CC	054;



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44	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,310,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1951	40 CFR 63, Subpart CC	055;
45	fixed roof cone tank/internal floating roof tank/mechanical primary seal	2,310,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1951	40 CFR 63, Subpart CC	056;
46	fixed roof cone tank	3,402,000	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1955	40 CFR 63, Subpart CC	057;
47	fixed roof cone tank/internal floating roof tank/mechanical primary seal	4,610,550	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	058;
48	external floating roof tank/mechanical primary seal	4,032,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1958	40 CFR 63, Subpart CC	059;
49	external floating roof tank/mechanical primary seal	4,032,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1958	40 CFR 63, Subpart CC	060;
50	fixed roof cone tank/internal floating roof tank/mechanical primary seal	3,934,266	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1965	40 CFR 63, Subpart CC	061;
51	fixed roof cone tank/internal floating roof tank/mechanical primary seal	3,937,266	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1973	40 CFR 63, Subpart CC	062;
52	fixed roof cone tank	3,935,148	336,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	063;
53	fixed roof cone tank	16,926	168,000	Ethanol,	1985	40 CFR 63, Subpart CC	086;
54	fixed roof cone tank	16,926	168,000	Ethanol,	1985	40 CFR 63, Subpart CC	087;
55	fixed roof cone tank	11,634	168,000	Ethanol,	1980	40 CFR 63, Subpart CC	088;
56	fixed roof cone tank	11,634	168,000	Ethanol,	1980	40 CFR 63, Subpart CC	089;
159	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1988	40 CFR 63, Subpart CC	103;

160	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	104;
161	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	105;
162	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1994	40 CFR 63, Subpart CC	106;
163	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1983	40 CFR 63, Subpart CC	107;
164	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1983	40 CFR 63, Subpart CC	108;
165	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	109;
166	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	110;
167	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1985	40 CFR 63, Subpart CC	111;
168	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true greater than 1.5 psi	1988	40 CFR 63, Subpart CC	112;
169	fixed roof cone tank	16,800	168,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1989	40 CFR 63, Subpart CC	113;
125	fixed roof cone tank/internal floating roof	157,000	6,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	2005	40 CFR 63, Subpart CC	015;
172	fixed roof cone tank	18,480		hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2002	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	
173	fixed roof cone tank/insulated/heated cone tank	1,050,000	16,800	Residual Fuel Oil (No.6) or Petroleum Material with a vapor pressure equivalent to or less than 1.5 psi	2006	40 CFR 63, Subpart CC	128;
1000 TK 17	fixed roof cone tank	1,806,000	147,000	Distillate fuel blend/Gas oil	2015	40 CFR 63, Subpart CC	133

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**DRAFT****Emission Limitations and Standards [326 IAC 2-7-5(1)]****D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]**

Pursuant to 326 IAC 8-4-3, Tank Nos. 1000-T400, 4A, 4B, 18, and 24 are subject to the following:

- (a) The facility must be equipped with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall unless the source has been equipped with equally effective alternative control which has been approved.
- (b) The facility is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.
- (c) All openings, except stub drains, are equipped with covers, lids, or seals such that:
  - (1) the cover, lid, or seal is in the closed position at all times except when in actual use;
  - (2) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
  - (3) rim vents, if provided are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

**D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]****D.2.3 Record Keeping Requirements [326 IAC 8-4-3]**

- (a) The Permittee shall comply with the record keeping requirements of 326 IAC 8-4-3. The following records are required for tank Nos. 1000-T400, 4A, 4B, 18, and 24:
  - (1) The types of volatile petroleum liquids stored,
  - (2) The maximum true vapor pressure of the liquids stored, and
  - (3) The results of the inspections performed on the tanks.

Such records will be maintained for a period of two (2) years and shall be made available to the commissioner upon written request.

- (b) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

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## SECTION D.3

## FACILITY OPERATION CONDITIONS

**Emission Unit Description:**

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
- (e) One (1) Main Refinery Flare, identified as 700V-101 with a maximum heat input rate of 371 MMBtu/hr of refinery fuel gas/process gas (with capacity for a supplementary pilot fuel heat input rate of 3.0 MMBtu/hr), installed in 1945 and replaced in 2006 and exhausting to stack 118. Under 40 CFR 60, Subpart Ja, the Main Refinery Flare is considered an affected facility by the Consent Decree as of June 3, 2013 or the earliest date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja.
- (f) One (1) Crude heater equipped with a Low-NO<sub>x</sub> burner, identified as 200-H2 with a maximum heat input rate of 131 MMBtu/hr, combusting refinery fuel gas, installed in 1955 and exhausting to stack 1. Under 40 CFR 60, Subpart J, the Crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Crude heater is considered an affected facility.
- (g) One (1) Unifiner heater, identified as 400-H5 with a maximum heat input rate of 20 MMBtu/hr, combusting refinery fuel gas, installed in 1959 and exhausting to stack 2. Under 40 CFR 60, Subpart J, the Unifiner heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Unifiner heater is considered an affected facility.
- (h) One (1) Cycle oil heater, identified as H-H2 with a maximum heat input rate of 10 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 3. Under 40 CFR 60, Subpart J, the Cycle oil heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Cycle oil heater is considered an affected facility.
- (i) One (1) Naphtha splitter heater, identified as 900-H1 with a maximum heat input rate of 12.2 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 4. Under 40 CFR 60, Subpart J, the Naphtha splitter heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Naphtha splitter heater is considered an affected facility.
- (j) One (1) Vacuum heater, identified as 200-H4 with a maximum heat input rate of 14.1 mmBtu/hr, combusting refinery fuel gas, installed in 1950, approved to be modified in 2007, and exhausting to stack 5. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater is considered an affected facility.

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- (k) One (1) Old Platformer heater, identified as Naphtha Splitter Reboiler 900-H2 with a maximum heat input rate of 27 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 6. Under 40 CFR 60, Subpart J, the Naphtha Splitter Reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Old Platformer heater is considered an affected facility.
- (l) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
- (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.
- (2) Leaks from process equipment, including valves, pumps, and flanges.
- (m) One (1) Auxiliary crude heater, identified as 200-H1 with a maximum heat input rate of 10.1 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 11. Under 40 CFR 60, Subpart J, the auxiliary crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Auxiliary crude heater is considered an affected facility.
- (n) One (1) Platformer stabilizer reboiler, identified as 300-H4 with a maximum heat input rate of 5.92 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 12. Under 40 CFR 60, Subpart J, the Platformer stabilizer reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Platformer stabilizer reboiler is considered an affected facility.
- (o) One (1) no. 1 boiler, constructed in 1957, with a maximum heat input rate of 52 MMBtu/hr of process gas, identified as B1 and exhausting to stack 8. Under 40 CFR 60, Subpart J, the No. 1 boiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the no. 1 boiler is considered an affected facility.
- (p) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.
- (q) One (1) Vacuum heater husky, identified as 200-H3 with a maximum heat input rate of 6.27 MMBtu/hr, combusting refinery fuel gas, installed in 1963 and exhausting to stack 64. Under 40 CFR 60, Subpart J, the vacuum heater Husky, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater husky is considered an affected facility.
- (r) One (1) CCR Platformer Unit which includes one (1) CCR Platformer Heater, identified as 300 - H1, H2, H3 with a maximum heat input rate of 70.3 MMBtu/hr, combusting refinery fuel gas, installed in 1992 and exhausting to stack 74. Under 40 CFR 63, Subpart UUU, process vents on the CCR are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the CCR Platformer Unit, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the CCR is considered an affected facility.

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- (z) One (1) boiler identified as B4, constructed in 2006, with a maximum heat input rate of 84.9 MMBtu/hr of process gas and/or natural gas, identified as B4 and exhausting to stack 131. Under 40 CFR 60, Subpart Dc, the boiler identified as boiler B4 above is considered an affected facility. Under 40 CFR Part 60, Subpart J, the boiler identified as boiler B4 above, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B4 is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]****D.3.1 NO<sub>x</sub> Minor Emission Limitation [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

The NO<sub>x</sub> emission rate from the boiler B5 shall not exceed 31.05 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this emission limit, in conjunction with the PTE of GenB5, will ensure that the potential to emit from this modification is less than forty (40) tons of NO<sub>x</sub> per year and therefore will render the requirements of 326 IAC 2-2 not applicable.

**D.3.2 Particulate Matter (PM) [326 IAC 6-2-3]**

Pursuant to 326 IAC 6-2-3 (Particulate Emissions Limitations for Sources of Indirect Heating) the PM emissions from boiler B1 shall be limited to 0.40 pounds per MMBtu heat input.

**D.3.3 Particulate Matter (PM) [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

Emission Unit	Unit ID	Pt (lb/MMBtu)
Boiler	B4	0.25
Boiler	B5	0.26

**D.3.4 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart J] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]**

- (a) As required by Paragraph 35 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-35410-00003, by no later than the December 31, 2014, the FCCU Raw Oil Pre-Heater (500-H101), Crude heater (200-H2), Unifiner heater (400-H5), Cycle oil heater (H-H2), Naphtha splitter heater (900-H1), Vacuum heater (200-H4), Old Platformer heater (Naphtha Splitter Reboiler 900-H2), Alkylation unit heater (100-H1), Auxiliary crude heater (200-H1), Platformer stabilizer (300-H4), boiler (B1), and the Vacuum heater husky (200-H3) shall be affected facilities as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of Subparts A and J for fuel gas combustion devices, including all monitoring, recordkeeping, reporting and operating requirements.
- (b) As required by Paragraph 36 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, a heater or boiler becomes subject to 40 CFR 60, Subpart Ja for SO<sub>2</sub> due to a "modification" (as the term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for SO<sub>2</sub>.

**D.3.5 Consent Decree (Civil No. 3:13-CV-00030-RLY-WGH) Requirements**

- (a) As required by Paragraph 27 of the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, on or before December 31, 2017, the Permittee shall use Qualifying Controls to reduce NOx emissions from the following combustion units by at least 68 tons per year so as to satisfy the following inequality: crude heater (200-H2), CCR Platformer Heater (300-H1, H2, H3), no. 1 boiler, no. 2 boiler, no. 3 boiler, and no. 4 boiler.

$$\sum_{i=1}^n [E_{actual_i} - E_{allowable_i}] \geq 68 \text{ tons of NOx per year}$$

Where:

(Eallowable)<sub>i</sub> = [(The permitted allowable pounds of NOx per million BTU for Combustion Unit i/(2000 pounds per ton)] x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for Combustion Unit i) x (the lower of 8760 or permitted hours per year)];

(EActual)<sub>i</sub> = The tons of NOx per year prior actual emissions during the refinery baseline years (unless prior actual emissions exceed allowable emissions, then use allowable) as shown in Appendix A of the Consent Decree for the crude heater (200-H2), CCR Platformer Heater (300 H1, H2, H3), no. 1 boiler, no. 2 boiler, no. 3 boiler, and no. 4 boiler; and

n = The number of Combustion Units with Qualifying Controls from the following that are selected by the Permittee to satisfy the requirements of the equation set forth in this Condition: crude heater (200-H2), CCR Platformer Heater (300 H1, H2, H3), no. 1 boiler, no. 2 boiler, no. 3 boiler, and no. 4 boiler.

- (b) The Permittee shall comply with the following limits:

Unit ID	Firing Rate, MMBtu/hr, annual average	NOx, lb/MMBtu	Hours of operation per year	NOx emissions, tons per year
B1	31.34	0.20	8,350	26.17
B4	84.9	0.045	8,760	16.73
B2	Permanent shut down upon startup of B5			
B3	Permanent shut down			

Prior to monitoring with a CEMS, the NOx in lb/MMBtu shall be determined using a 12-hour average (averaging period of the reference test method), following completion of CEMS certification for B1 and B4, the NOx in lb/MMBtu shall be determined using a 365-day rolling average.

**D.3.6 Consent Decree Requirements [326 IAC 2-7-10.5]**

As required by Paragraph 38 of the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:

- (a) By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall not burn Fuel Oil in any existing combustion device

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except during periods of Natural Gas Curtailment, Test Runs, or operator training. Nothing in this prohibition limits the Permittee's ability to burn Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.

- (b) By no later than the "Date of Lodging" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the Permittee shall not construct any new combustion device that burns Fuel Oil unless the air pollution control equipment controlling the combustion device either:
- (1) has an SO<sub>2</sub> control efficiency of 90% or greater; or
  - (2) achieves an SO<sub>2</sub> concentration of 20 ppm or less at 0% O<sub>2</sub> on a 3-hour rolling average basis.

Nothing in this Condition exempts the Permittee from securing all necessary permits before constructing a new combustion device.

D.3.7 Consent Decree Requirements [326 IAC 2-7-10.5] – Main Flare

As required by Paragraph B.25 and B.27 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003 and SSM No. 129-35410-00003, by no later than the Date of Entry, CountryMark shall comply with the following requirements at the Covered Flare:

- (a) CountryMark shall operate the Covered Flare at all times when emissions may be vented to it.
- (b) Except for periods of Startup, Shutdown, and/or Malfunction of the Covered Flare, CountryMark shall operate the Covered Flare with no Visible Emissions. Method 22 in 40 C.F.R. Part 60, Appendix A, shall be used to determine compliance with this standard. However, for purposes of this Appendix, Visible Emissions may be determined by either a person certified pursuant to Method 22 or by a video camera.
- (c) Except for periods of Malfunction of the Flare, CountryMark shall operate each Covered Flare with a flame present at all times. CountryMark shall monitor the presence of the pilot flame using a thermocouple or any other equivalent device to detect the presence of the pilot flame.
- (d) CountryMark shall comply with all applicable Subparts of 40 C.F.R. Parts 60, 61, or 63 that state how a particular Covered Flare must be monitored.
- (e) At all times, including during periods of Startup, Shutdown, and/or Malfunction, CountryMark shall implement good air pollution control practices to minimize emissions from the Covered Flare; provided however, that CountryMark shall not be in violation of this requirement for any practice that this Appendix requires CountryMark to implement after the Date of Entry for the period between the Date of Entry and the implementation date or compliance date (whichever is applicable) for the particular practice.
- (f) To the extent that, from the Date of Lodging of this Consent Decree until its termination, revisions to 40 C.F.R. §§ 60.18(b)–(f) and/or 63.11(b) that are applicable to CountryMark are final and effective but are inconsistent with any of the requirements in Paragraphs B25(a)–(d) or B26, then CountryMark shall comply with the final, effective regulations and any requirements in Paragraphs B25(a)–(d) and/or B26 that are not inconsistent with these final, effective regulations. As used in this Paragraph, “inconsistent” mean that compliance with both provisions is not possible.



**DRAFT****D.3.8 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart J] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]**

As required by Paragraph B.39 and B.40 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:

- (a) Beginning on March 31, 2013, and continuing until, pursuant (b) below, the Covered Flare becomes subject to 40 C.F.R. Part 60, Subpart Ja, the Covered Flare shall be an "affected facility" as that term is used in the NSPS at Subparts A and J, and shall be subject to and comply with the requirements of Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements.
- (b) The Covered Flare shall be an "affected facility" within the meaning of Subparts A and Ja of 40 C.F.R. Part 60, and shall comply with the requirements of Subparts A and Ja, including all monitoring, recordkeeping, reporting, and operating requirements, by the later of: (i) March 31, 2013; or (ii) the earliest date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja.
  - (1) To the extent that the later of the two possible dates is March 31, 2013, then Subpart Ja, and not Subpart J, is the applicable Subpart on and after March 31, 2013.
  - (2) To the extent that the later of the two possible dates is "the earliest date by which a 'modified' flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja," then Subpart J is applicable between March 31, 2013, and the applicable date(s) of Subpart Ja. Thereafter, only Subpart Ja is applicable.
  - (3) On and after the date(s) that the Covered Flare is subject to Subpart Ja, Subpart J no longer is applicable to that Covered Flare.

**D.3.9 Preventive Maintenance Plan [326 IAC 2-7-5(12)]**

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements****D.3.10 NOx Limitation Averaging Time and Monitoring Requirements**

As required by Paragraph 31 of the Consent Decree entered in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, except for any Combustion Unit for which the Qualifying Control is a permanent shutdown as identified in Subparagraph 26.d of the Consent Decree, beginning no later than one-hundred eighty (180) days after installing Qualifying Controls on and commencing operation of a Combustion Unit that will be used to satisfy the requirements of Paragraph 27 of the Consent Decree, the Permittee will monitor the Combustion Units as follows:

- (a) For Combustion Units with a maximum physical capacity greater than 100 MMBtu/hr (HHV), install or continue to operate a NOx CEMS;
- (b) For Combustion Units with a maximum physical capacity of less than or equal to 100 MMBtu/hr (HHV), conduct an initial performance test and any periodic tests that may be required by EPA or by IDEM under other applicable regulatory authority. The results of the initial performance testing will be reported to EPA and IDEM.

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The Permittee will use Method 7E of 40 C.F.R. Part 60, Appendix A-4 (or a test method made applicable by a future, final EPA regulation) to conduct initial performance testing for NO<sub>x</sub> emissions required by Subparagraph 31.b of the Consent Decree. Units with Qualifying Controls installed before the Date of Entry that are subject to this Condition will comply by no later than July 31, 2013.

D.3.11 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)][40 CFR 60, Subpart Db][40 CFR 60, Subpart J]

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- (a) As required by Paragraph 32 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, the Permittee shall use NO<sub>x</sub> CEMS to demonstrate compliance with the NO<sub>x</sub> limits in Condition D.3.5. The Permittee shall install, certify, calibrate, maintain and operate any NO<sub>x</sub> CEMS required by Paragraph 31.a in accordance with the provisions of 40 CFR 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 CFR Part 60 Appendix B. However, unless Appendix F is required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 CFR Appendix F 5.1.1, 5.1.3, and 5.1.4, the Permittee may conduct: (1) either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) once every three years; and (2) a Cylinder Gas Audit (CGA) each calendar quarter in which a RAA or RATA is not performed. If the CEMS must be moved because of the installation of control equipment, the Permittee shall promptly reinstall, re-calibrate, and re-certify the CEMS.
- (b) In order to demonstrate compliance with the a 365-day rolling average NO<sub>x</sub> limits in Condition D.3.5 (b) for B1 and B4, the Permittee shall use a NO<sub>x</sub> CEMS meeting the requirements of (a) and (e) of this Condition.
- (c) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for Combustion Units generating steam with a maximum physical capacity greater than 100 MMBtu/hr (HHV) and boiler B5 shall be calibrated, maintained, and operated for measuring NO<sub>x</sub>, which meet all applicable performance specifications of 326 IAC 3-5-2.
- (d) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for NSPS J and Ja fuel gas combustion devices CCR Platformer 300-H1, H2, H3, the FCCU Raw Oil Pre-Heater (500-H101), Crude heater (200-H2), Unifiner heater (400-H5), Cycle oil heater (H-H2), Naphtha splitter heater (900-H1), Vacuum heater (200-H4), Old Platformer heater (Naphtha Splitter Reboiler 900-H2), Alkylation unit heater (100-H1), Auxiliary crude heater (200-H1), Platformer stabilizer (300-H4), boiler (B1), boiler (B4), boiler (B5), and the Vacuum heater husky (200-H3), shall be calibrated, maintained, and operated for measuring hydrogen sulfide, which meet all applicable performance specifications of 326 IAC 3-5-2.
- (e) All continuous emissions monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (f) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60, Subpart Db, 40 CFR 60, Subpart J, 40 CFR 60, Subpart Ja, and 40 CFR 63, Subpart DDDDD.

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**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]****D.3.12 NO<sub>x</sub> and H<sub>2</sub>S Continuous Emissions Monitoring (CEMS) Equipment Downtime**

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In the event that a breakdown of a NO<sub>x</sub> or H<sub>2</sub>S continuous emissions monitoring system (CEMS) occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]****D.3.13 Record Keeping Requirements [326 IAC 2-7-5(3)(A)(iii)][326 IAC 3-5]**

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- (a) To document the compliance status with Condition D.3.1, the Permittee shall maintain records of the tons of NO<sub>x</sub> emitted monthly and per twelve (12) consecutive month period from boiler B5.
- (b) To document the compliance status with Conditions D.3.5 the Permittee shall maintain records in accordance with (1) through (3) below.
  - (1) The annual boiler B1 and boiler B4 fuel usage and the annual average fuel BTU content.
  - (2) Boiler B1 and boiler B4 NO<sub>x</sub> emission rate from the NO<sub>x</sub> CEMS.
  - (3) Boiler B1 and boiler B4 annual hours of operation.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) The Permittee shall record the output of the NO<sub>x</sub> continuous monitoring system(s) tons per hour and shall perform the required record keeping pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (d) The Permittee shall record the output of the H<sub>2</sub>S continuous monitoring system(s) ppmvd and shall perform the required record keeping pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (e) In the event that a breakdown of the NO<sub>x</sub> or H<sub>2</sub>S continuous emission monitoring systems (CEMS) occurs, the Permittee shall maintain records of all CEMS malfunctions, out of control periods, calibration and adjustment activities, and repair or maintenance activities.
- (f) Pursuant to 326 IAC 7-2-1(c)(3), the source shall maintain records as follows for the Fluidized Catalytic Cracking Unit (FCCU): calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu.
- (g) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

**D.3.14 Reporting Requirements [326 IAC 2-7-5(3)(A)(iii)][326 IAC 3-5]**

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- (a) A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does

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require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (35).

- (b) The Permittee shall prepare and submit to IDEM, OAQ a written report of the results of the calibration gas audits and relative accuracy test audits for each calendar quarter within thirty (30) calendar days after the end of each quarter. The report must contain the information required by 326 IAC 3-5-5(e)(2).

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

- (c) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

- (1) date of downtime;
- (2) time of commencement;
- (3) duration of each downtime;
- (4) reasons for each downtime; and
- (5) nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

- (d) Pursuant to 326 IAC 7-2-1(c)(3), the source shall submit reports for the Fluidized Catalytic Cracking Unit (FCCU) of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

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**SECTION D.4****FACILITY OPERATION CONDITIONS****Emission Unit Description:****Insignificant Activities**

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]****D.4.1 Gasoline Dispensing Facilities [326 IAC 8-4-6]**

Pursuant to 326 IAC 8-4-6(b), stage I vapor recovery system requirements at gasoline dispensing facilities are as follows:

- (a) No owner or operator of a gasoline dispensing facility shall allow the transfer of gasoline between any transport and any storage tank unless the tank is equipped with the following:
- (1) A submerged fill pipe that extends to not more than:
    - (A) twelve (12) inches from the bottom of the storage tank if the fill pipe was installed on or before November 9, 2006; or
    - (B) six (6) inches from the bottom of the storage tank if the fill pipe was installed after November 9, 2006.
  - (2) Either a pressure relief valve set to release at not less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
  - (3) A vapor balance system connected between the tank and the transport operating according to manufacturer's specifications.
- (b) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is:
- (1) connected between the transport and the storage tank; and
  - (2) operating according to manufacturer's specifications.

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## SECTION D.5

## FACILITY OPERATION CONDITIONS

**Emission Unit Description:****Insignificant Activities**

- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs:
- (1) Cutting torches.
  - (2) Soldering equipment.
  - (3) Welding equipment.
- (g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute as follows: Abrasive blasting.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]****D.5.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate emissions from the equipment listed under insignificant activities shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour.

**SECTION E.1****40 CFR 60, Subpart Db****Emission Unit Description:**

- (p) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Db.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.1.2 Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12] [40 CFR Part 60, Subpart Db]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db, which are incorporated by reference as 326 IAC 12 (included as Attachment A to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.40b (a), (c)
- (2) 40 CFR 60.41b
- (3) 40 CFR 60.44b (a)(1)(ii), (h), (i)
- (4) 40 CFR 60.46b (a), (c), (e)(1), (e)(4)
- (5) 40 CFR 60.48b (b), (c), (d), (e)(2), (e)(3), (f), (g)(1)
- (6) 40 CFR 60.49b (a)(1), (a)((3), (b), (d), (g), (h)(4), (i), (o), (v), (w)

**SECTION E.2****40 CFR 60, Subpart Dc****Emission Unit Description:**

- (z) One (1) boiler identified as B4, constructed in 2006, with a maximum heat input rate of 84.9 MMBtu/hr of process gas and/or natural gas, identified as B4 and exhausting to stack 131. Under 40 CFR 60, Subpart Dc, the boiler identified as boiler B4 above is considered an affected facility. Under 40 CFR Part 60, Subpart J, the boiler identified as boiler B4 above, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B4 is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Dc.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.2.2 Small Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12] [40 CFR Part 60, Subpart Dc]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc, which are incorporated by reference as 326 IAC 12 (included as Attachment B to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.40c (a)  
(2) 40 CFR 60.41c  
(3) 40 CFR 60.48c (a)(1), (a)(3)



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## SECTION E.3

## 40 CFR 60, Subpart J

**Emission Unit Description:**

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
  - (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.
- (f) One (1) Crude heater equipped with a Low-NO<sub>x</sub> burner, identified as 200-H2 with a maximum heat input rate of 131 MMBtu/hr, combusting refinery fuel gas, installed in 1955 and exhausting to stack 1. Under 40 CFR 60, Subpart J, the Crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Crude heater is considered an affected facility.
- (g) One (1) Unifiner heater, identified as 400-H5 with a maximum heat input rate of 20 MMBtu/hr, combusting refinery fuel gas, installed in 1959 and exhausting to stack 2. Under 40 CFR 60, Subpart J, the Unifiner heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Unifiner heater is considered an affected facility.
- (h) One (1) Cycle oil heater, identified as H-H2 with a maximum heat input rate of 10 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 3. Under 40 CFR 60, Subpart J, the Cycle oil heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Cycle oil heater is considered an affected facility.
- (i) One (1) Naphtha splitter heater, identified as 900-H1 with a maximum heat input rate of 12.2 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 4. Under 40 CFR 60, Subpart J, the Naphtha splitter heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Naphtha splitter heater is considered an affected facility.
- (j) One (1) Vacuum heater, identified as 200-H4 with a maximum heat input rate of 14.1 mmBtu/hr, combusting refinery fuel gas, installed in 1950, approved to be modified in 2007, and exhausting to stack 5. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility by

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the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater is considered an affected facility.

- (k) One (1) Old Platformer heater, identified as Naphtha Splitter Reboiler 900-H2 with a maximum heat input rate of 27 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 6. Under 40 CFR 60, Subpart J, the Naphtha Splitter Reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Old Platformer heater is considered an affected facility.
- (l) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
  - (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.
- (m) One (1) Auxiliary crude heater, identified as 200-H1 with a maximum heat input rate of 10.1 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 11. Under 40 CFR 60, Subpart J, the auxiliary crude heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Auxiliary crude heater is considered an affected facility.
- (n) One (1) Platformer stabilizer reboiler, identified as 300-H4 with a maximum heat input rate of 5.92 mmBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 12. Under 40 CFR 60, Subpart J, the Platformer stabilizer reboiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Platformer stabilizer reboiler is considered an affected facility.
- (o) One (1) no. 1 boiler, constructed in 1957, with a maximum heat input rate of 52 MMBtu/hr of process gas, identified as B1 and exhausting to stack 8. Under 40 CFR 60, Subpart J, the No. 1 boiler, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the no. 1 boiler is considered an affected facility.
- (q) One (1) Vacuum heater husky, identified as 200-H3 with a maximum heat input rate of 6.27 MMBtu/hr, combusting refinery fuel gas, installed in 1963 and exhausting to stack 64. Under 40 CFR 60, Subpart J, the vacuum heater Husky, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Vacuum heater husky is considered an affected facility.
- (r) One (1) CCR Platformer Unit which includes one (1) CCR Platformer Heater, identified as 300 - H1, H2, H3 with a maximum heat input rate of 70.3 MMBtu/hr, combusting refinery fuel gas, installed in 1992 and exhausting to stack 74. Under 40 CFR 63, Subpart UUU, process vents on the CCR are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the CCR Platformer Unit, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the CCR is considered an affected facility.
- (w) One (1) Hydrotreating Unit Reboiler Stabilizer, identified as 210-H-101, with a maximum heat input rating of 19.94 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 123 constructed in 2005. Under 40 CFR 60, Subpart J, the Hydrotreating Unit Reboiler Stabilizer, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Hydrotreating Unit Reboiler Stabilizer is considered an affected facility.

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- (x)
- (1) One (1) Claus Unit Startup burner (SRU Burner 520-H-101), identified as 124-1, with a maximum heat input rating of 1.54 MMBtu per hour, combusting natural gas, and exhausting through one (1) stack identified as 124-1, constructed in 2005. Under 40 CFR 60, Subpart J, the Claus Unit Startup burner, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Claus Unit Startup burner is considered an affected facility.
  - (2) One (1) Tail Gas Treating Unit (TGTU) Incinerator burner (Claus Furnace 520-H-102), identified as 124-2, with a maximum heat input rating of 1.29 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a backup fuel, and exhausting through one (1) stack identified as 124-2, constructed in 2005. In the event of unscheduled shutdown of the CCR unit, the Sulfur Recovery Unit effluent will be routed directly to the TGTU incinerator. Under 40 CFR 60, Subpart J, the Tail Gas Treating Unit (TGTU) Incinerator burner, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Tail Gas Treating Unit (TGTU) Incinerator burner is considered an affected facility.
  - (3) One (1) Tail Gas Treating Unit (TGTU) Incinerator (520-H-162), identified as 124-3, with a maximum process flow rate of 48,000 dry standard cubic feet per day, and exhausting through one (1) stack identified as 124-3, constructed in 2005.
  - (4) One (1) Sour Flare (520-H-163), identified as 124-4, with a maximum burner capacity of 0.92 MMBtu per hour, and a maximum process flow rate of 200 standard cubic feet per hour, and exhausting through one (1) stack identified as 124-4, constructed in 2005. Under 40 CFR 60, Subpart J, the Sour Flare, is considered an affected facility by the Consent Decree as of March 31, 2013.
- (y) One (1) Vacuum heater, identified as 200-H6, with a maximum heat input rate of 5.49 MMBtu/hr, combusting refinery fuel gas and natural gas as a backup, installed in 2005 and exhausting to stack 126. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Vacuum heater is considered an affected facility.
- (z) One (1) boiler identified as B4, constructed in 2006, with a maximum heat input rate of 84.9 MMBtu/hr of process gas and/or natural gas, identified as B4 and exhausting to stack 131. Under 40 CFR 60, Subpart Dc, the boiler identified as boiler B4 above is considered an affected facility. Under 40 CFR Part 60, Subpart J, the boiler identified as boiler B4 above, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B4 is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

#### **E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart J.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.3.2 Petroleum Refineries NSPS [326 IAC 12] [40 CFR Part 60, Subpart J]

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart J, which are incorporated by reference as 326 IAC 12 (included as Attachment C to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.100
- (2) 40 CFR 60.101
- (3) 40 CFR 60.103
- (4) 40 CFR 60.104 (a)(1), (b)
- (5) 40 CFR 60.105 (a), (b), (e)(6)
- (6) 40 CFR 60.106 (a), (d), (e)(1)(i-iii), (f-k)
- (7) 40 CFR 60.107 (e), (f), (g)
- (8) 40 CFR 60.108 (a)
- (9) 40 CFR 60.109

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## SECTION E.4

## 40 CFR 60, Subpart Ja

**Emission Unit Description:**

- (e) One (1) Main Refinery Flare, identified as 700-V101 with a maximum heat input rate of 371 MMBtu/hr of refinery fuel gas/process gas (with capacity for a supplementary pilot fuel heat input rate of 3.0 MMBtu/hr), installed in 1945 and replaced in 2006 and exhausting to stack 118. Under 40 CFR 60, Subpart Ja, the Main Refinery Flare is considered an affected facility by the Consent Decree as of June 3, 2013 or the earliest date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja.
- (p) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.
- (v) One (1) Hydrotreating Unit Reactor charge heater, identified as 210-H-100, with a maximum heat input rating of 30 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 122, constructed in 2005 and approved in 2014 for modification.  
  
Under 40 CFR 63, Subpart DDDDD and 40 CFR 60, Subpart Ja, the Hydrotreating Unit Reactor charge heater is considered an affected facility.
- (x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.
- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved for in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.4.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Ja.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.4.2 Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007 NSPS [326 IAC 12] [40 CFR Part 60, Subpart Ja]

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Ja, which are incorporated by reference as 326 IAC 12 (included as Attachment D to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.100a
- (2) 40 CFR 60.101a
- (3) 40 CFR 60.102a (a), (b), (c)(1), (g), (f)(2)
- (4) 40 CFR 60.103a
- (5) 40 CFR 60.104a
- (6) 40 CFR 60.105a (a), (b)(1)(i), (d), (f), (g), (h), (i)
- (7) 40 CFR 60.106a
- (8) 40 CFR 60.107a
- (9) 40 CFR 60.108a
- (10) 40 CFR 60.109a
- (11) Table 1

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## SECTION E.5

## 40 CFR 60, Subpart K

**Emission Unit Description:**

(d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
47	fixed roof cone tank/internal floating roof tank/mechanical primary seal	4,610,550	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	058;
52	fixed roof cone tank	3,935,148	336,000	hydrocarbon with maximum true vapor less than 1.5 psi	1976	40 CFR Part 60, Subpart K and 40 CFR 63, Subpart CC	063;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart K.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
 Compliance and Enforcement Branch, Office of Air Quality  
 100 North Senate Avenue  
 MC 61-53 IGCN 1003  
 Indianapolis, Indiana 46204-2251

**E.5.2 Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 NSPS [326 IAC 12] [40 CFR Part 60, Subpart K]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart K, which are incorporated by reference as 326 IAC 12 (included as Attachment E to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.110
- (2) 40 CFR 60.111
- (3) 40 CFR 60.112
- (4) 40 CFR 60.113

**SECTION E.6****40 CFR 60, Subpart Kb****Emission Unit Description:**

- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:

(1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135
18	internal floating roof tank/mechanical primary seal	1,052,013	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2003	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
24	fixed roof cone tank/internal floating roof tank/mechanical primary seal	588,714	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	1985	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	037;
172	fixed roof cone tank	588,714		hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2002	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	



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(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.6.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

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(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.6.2 VOC Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 NSPS [326 IAC 12] [40 CFR Part 60, Subpart Kb]**

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Kb, which are incorporated by reference as 326 IAC 12 (included as Attachment F to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.110b (a), (b), (d), (e)
- (2) 40 CFR 60.111b
- (3) 40 CFR 60.112b (a)(1), (a)(4), (b)
- (4) 40 CFR 60.113b
- (5) 40 CFR 60.114b
- (6) 40 CFR 60.115b
- (7) 40 CFR 60.116b
- (8) 40 CFR 60.117b

**SECTION E.7****40 CFR 60, Subpart GGG****Emission Unit Description:**

The following equipment in VOC service.

- (u) Process units made up of vessels, piping, exchangers, identified as PENEX. Under 40 CFR 60, Subpart GGG, each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector is considered an affected source at a petroleum refinery.

**Insignificant Activities**

- (h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
- (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
- (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
- (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
- (5) For nitrogen oxides (NO<sub>x</sub>), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
- (6) For PM<sub>10</sub> or direct PM<sub>2.5</sub>, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.

- (A) Pipeline Valves - Gas, identified as 090.
- (B) Pipeline Valves - Light Liquid, identified as 091.
- (C) Pipeline Valves - Heavy Liquid, identified as 092.
- (D) Pipeline Valves - Hydrogen, identified as 093.
- (E) Open Ended Valves, identified as 094.
- (F) Flanges, identified as 095.
- (G) Pump Seals Light Liquid, identified as 096.
- (H) Pump Seals Heavy Liquid, identified as 097.
- (I) Compressor Seals - Gas, identified as 098.
- (J) Compressor Seals - Heavy Liquid, identified as 099.
- (K) Vessel Relief Valves, identified as 101.
- (L) Fugitive emissions from the Hydrotreater unit, Amine Unit, Sulfur Recovery Unit, Tail Gas Treatment Unit consisting of:

- (1) pipeline Valves - Gas, identified as 090;
- (2) pipeline Valves - Light Liquid, identified as 091;
- (3) pipeline Valves - Heavy Liquid, identified as 092;
- (4) pipeline Valves - Hydrogen, identified as 093;
- (5) open Ended Valves, identified as 094;
- (6) Miscellaneous (Sampling, Blowing, Purging, etc.), identified as 073;
- (7) flanges, identified as 095;
- (8) pump Seals Light Liquid, identified as 096;
- (9) pump Seals Heavy Liquid, identified as 097;
- (10) compressor Seals - Gas, identified as 098;
- (11) compressor Seals - Heavy Liquid, identified as 099;
- (12) drains, identified as 100; and
- (13) vessel Relief Valves, identified as 101.

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Under 40 CFR 60, Subpart GGG, each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector is considered an affected source at a petroleum refinery.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.7.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart GGG.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**E.7.2 Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006 NSPS [326 IAC 12] [40 CFR Part 60, Subpart GGG]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart GGG, which are incorporated by reference as 326 IAC 12 (included as Attachment G to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.590
- (2) 40 CFR 60.591
- (3) 40 CFR 60.592
- (4) 40 CFR 60.593

**E.7.3 Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 [326 IAC 12-1] [40 CFR 60, Subpart VV] [40 CFR 60, Subpart GGG]**

Pursuant to 40 CFR Part 60, Subpart GGG, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart VV, which are incorporated by reference as 326 IAC 12 (included as Attachment H to the operating permit), as follows.

- (1) 40 CFR 60.481
- (2) 40 CFR 60.482-1
- (3) 40 CFR 60.482-2
- (4) 40 CFR 60.482-3
- (5) 40 CFR 60.482-4
- (6) 40 CFR 60.482-5
- (7) 40 CFR 60.482-6
- (8) 40 CFR 60.482-7
- (9) 40 CFR 60.482-8

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- (10) 40 CFR 60.482-9
- (11) 40 CFR 60.482-10
- (12) 40 CFR 60.483-1
- (13) 40 CFR 60.483-2
- (14) 40 CFR 60.485
- (15) 40 CFR 60.486
- (16) 40 CFR 60.487
- (17) 40 CFR 60.488

**SECTION E.8****40 CFR 60, Subpart GGGa****Emission Unit Description:**

Each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service constructed, reconstructed, or modified after November 7, 2006.

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
  - (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
  - (e2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.
  - (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:
  - (3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.
- (l) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
  - (2) Leaks from process equipment, including valves, pumps, and flanges.
- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved for construction in 2008, with a maximum capacity of 5.985 MMBtu, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

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- (2) #5 Cooling Tower with a maximum capacity of 4,000 gpm approved for construction in 2008 and approved for modification in 2014.
- (3) LSG Unit components and drains (800 valves, 16 drains, and 5 pumps) approved for construction in 2008. Under 40 CFR 63, Subpart CC, equipment leaks associated with a petroleum refinery are considered as an affected facility. Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery. Under 40 CFR 60, Subpart GGGa, valves are considered affected facilities at a petroleum refinery. Under 40 CFR 61 Subpart FF new and existing drains are considered affected facilities for benzene waste operations.

Under 40 CFR 60, Subpart GGGa, these units are considered affected facilities at a petroleum refinery.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

#### **E.8.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart GGGa.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### **E.8.2 Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 NSPS [326 IAC 12] [40 CFR Part 60, Subpart GGGa]**

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart GGGa, which are incorporated by reference as 326 IAC 12 (included as Attachment I to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.590a
- (2) 40 CFR 60.591a
- (3) 40 CFR 60.592a
- (4) 40 CFR 60.593a

#### **E.8.3 Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [326 IAC 12-1] [40 CFR 60, Subpart VVa][40 CFR 60, Subpart GGGa]**

Pursuant to 40 CFR Part 60, Subpart GGGa, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart VVa, which are incorporated by reference as 326 IAC 12 (included as Attachment J to the operating permit), as follows.

- (1) 40 CFR 60.481a
- (2) 40 CFR 60.482-1a

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- (3) 40 CFR 60.482-2a
- (4) 40 CFR 60.482-3a
- (5) 40 CFR 60.482-4a
- (6) 40 CFR 60.482-5a
- (7) 40 CFR 60.482-6a
- (8) 40 CFR 60.482-7a
- (9) 40 CFR 60.482-8a
- (10) 40 CFR 60.482-9a
- (11) 40 CFR 60.482-10a
- (12) 40 CFR 60.482-11a
- (13) 40 CFR 60.483-1a
- (14) 40 CFR 60.483-2a
- (15) 40 CFR 60.484a
- (16) 40 CFR 60.485a
- (17) 40 CFR 60.486a
- (18) 40 CFR 60.487a
- (19) 40 CFR 60.488a

**SECTION E.9****40 CFR 60, subpart QQQ****Emission Unit Description:**

- (s) Two (2) sets of Oil/water Separators equipped with covers for VOC control, identified as 071; Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected sources at a petroleum refinery.
- (t) Cooling Towers, identified as 119. One of the cooling towers is associated with the DHT.
- (aa) (3) LSG Unit components and drains (800 valves, 16 drains, and 5 pumps) approved for construction in 2008. Under 40 CFR 63, Subpart CC, equipment leaks associated with a petroleum refinery are considered as an affected facility. Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery. Under 40 CFR 60, Subpart GGGa, valves are considered affected facilities at a petroleum refinery. Under 40 CFR 61 Subpart FF new and existing drains are considered affected facilities for benzene waste operations.

**Insignificant Activities**

- (h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:
  - (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
  - (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
  - (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
  - (5) For nitrogen oxides (NO<sub>x</sub>), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (6) For PM<sub>10</sub> or direct PM<sub>2.5</sub>, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.
  - (M) One (1) Miscellaneous operation (Sampling, Blowing, Purging, etc.), identified as 073.
  - (N) Drains, identified as 100.

Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.9.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart QQQ.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:



Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.9.2 VOC Emissions from Petroleum Refinery Wastewater Systems NSPS [326 IAC 12] [40 CFR Part 60, Subpart QQQ]

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart QQQ, which are incorporated by reference as 326 IAC 12 (included as Attachment K to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.690
- (2) 40 CFR 60.691
- (3) 40 CFR 60.692-1
- (4) 40 CFR 60.692-3 (a), (c), (d), (f)
- (5) 40 CFR 60.692-5
- (6) 40 CFR 60.692-6
- (7) 40 CFR 60.692-7
- (8) 40 CFR 60.693-2
- (9) 40 CFR 60.696 (a), (c), (d)
- (10) 40 CFR 60.697 (a), (c), (e), (k)
- (11) 40 CFR 60.699

**SECTION E.10****40 CFR 60, Subpart IIII****Emission Unit Description:****Insignificant Activities**

- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
- (f) Stationary fire pump engines.
  - (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]****E.10.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
 Compliance and Enforcement Branch, Office of Air Quality  
 100 North Senate Avenue  
 MC 61-53 IGCN 1003  
 Indianapolis, Indiana 46204-2251

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## E.10.2 Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12] [40 CFR Part 60, Subpart IIII]

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII, which are incorporated by reference as 326 IAC 12 (included as Attachment L to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 60.4200
- (2) 40 CFR 60.4205 (b), (c)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207 (a), (b)
- (5) 40 CFR 60.4208
- (6) 40 CFR 60.4211 (f), (g)
- (7) 40 CFR 60.4214 (b), (d)
- (8) 40 CFR 60.4218
- (9) 40 CFR 60.4219
- (10) Table 4
- (11) Table 8

**SECTION F.1****40 CFR 61, Subpart FF****Emission Unit Description:**

The units subject to this rule include all process units and product tanks that generate waste within a stationary source, and all waste management units that are used for waste treatment, storage, or disposal within a stationary source.

Under 40 CFR 61, Subpart FF, this stationary petroleum refinery is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**  
**[326 IAC 2-7-5(1)]**
**F.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 61 [326 IAC 14-1] [40 CFR Part 61, Subpart A]**

- (a) Pursuant to 40 CFR 61.1, the Permittee shall comply with the applicable provisions of 40 CFR Part 61, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 14-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 61, Subpart FF.

- (b) Pursuant to 40 CFR 61.04, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
 Compliance and Enforcement Branch, Office of Air Quality  
 100 North Senate Avenue  
 MC 61-53 IGCN 1003  
 Indianapolis, Indiana 46204-2251

**F.1.2 Benzene Waste Operations NESHAP [40 CFR Part 61, Subpart FF]**

The Permittee shall comply with the following provisions of 40 CFR Part 61, Subpart FF (included as Attachment M to permit), for the emissions unit(s) listed above.

- (1) 40 CFR 61.340
- (2) 40 CFR 61.341
- (3) 40 CFR 61.342 (a)
- (4) 40 CFR 61.355
- (5) 40 CFR 61.356 (a), (b)(1), (b)(5)
- (6) 40 CFR 61.357 (a), (c)

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## SECTION G.1

## 40 CFR 63, Subpart R

**Emissions Unit Description:**

- (a) One (1) Truck loading rack, with a maximum capacity of 60,000 gallons of submerged loading of gasoline, kerosene or distillate oil per hour, installed in 1958, identified as Loading Rack, and exhausting to stack 65; controlled by the Loading Rack Flare, equipped with a 0.09 million British Thermal Units per hour (MMBtu/hr) natural gas fired pilot and designed to handle 160 actual cubic feet per minute (acfm) of hydrocarbon vapors, installed in 1998, and exhausting to stack 1D. Under 40 CFR 63, Subpart R, this facility is considered an existing bulk gasoline terminal.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements****[326 IAC 2-7-5(1)]**
**G.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart R.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

**G.1.2 Gasoline Distribution Facilities NESHAP [326 IAC 20-10] [40 CFR 63, Subpart R]**

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart R, which are incorporated by reference as 326 IAC 20-10 (included as Attachment N to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR Part 63.420
- (2) 40 CFR Part 63.421
- (3) 40 CFR Part 63.422 (a-c)
- (4) 40 CFR Part 63.424
- (5) 40 CFR Part 63.425 (a-c), (e-h)
- (6) 40 CFR Part 63.427 (a-b)
- (7) 40 CFR Part 63.428 (b), (c), (e), (f), (g), (h)(1-3), (i), (j), (k)
- (8) Table 1.

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## SECTION G.2

## 40 CFR 63, Subpart CC

### Emission Unit Description:

- (1) All miscellaneous process vents from petroleum refining process units;
- (2) All storage vessels associated with petroleum refining process units;
- (3) All wastewater streams and treatment operations associated with petroleum refining process units;
- (4) All equipment leaks from petroleum refining process units;
- (5) All gasoline loading racks classified under Standard Industrial Classification code 2911;
- (6) All marine vessel loading operations located at a petroleum refinery; and
- (7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

#### G.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart CC.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### G.2.2 Petroleum Refineries NESHAP [40 CFR Part 63, Subpart CC] [326 IAC 20-16]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart CC, which are incorporated by reference as 326 IAC 20-16 (included as Attachment O to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 63.640
- (2) 40 CFR 63.641
- (3) 40 CFR 63.642
- (4) 40 CFR 63.643
- (5) 40 CFR 63.644
- (6) 40 CFR 63.645
- (7) 40 CFR 63.646
- (8) 40 CFR 63.647
- (9) 40 CFR 63.648
- (10) 40 CFR 63.649
- (11) 40 CFR 63.650

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- (12) 40 CFR 63.651
- (13) 40 CFR 63.652
- (14) 40 CFR 63.653
- (15) 40 CFR 63.654
- (16) 40 CFR 63.655 (d), (e), (f), (g), (h), (i)(1)(iv)
- (17) 40 CFR 63.656

G.2.3 Standard of Performance for Storage Vessels for Bulk Gasoline Terminals [326 IAC 12-1] [40 CFR 60, Subpart XX][326 IAC 20-16][40 CFR 63, Subpart CC]

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Pursuant to 40 CFR Part 63, Subpart CC, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart XX, which are incorporated by reference as 326 IAC 12 (included as Attachment P to the operating permit), as follows.

- (1) 40 CFR 60.500
- (2) 40 CFR 60.501
- (3) 40 CFR 60.502
- (4) 40 CFR 60.503
- (5) 40 CFR 60.505
- (6) 40 CFR 60.506

**SECTION G.3****40 CFR 63, Subpart UUU****Emission Unit Description:**

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.
- (r) One (1) CCR Platformer Unit which includes one (1) CCR Platformer Heater, identified as 300 - H1, H2, H3 with a maximum heat input rate of 70.3 MMBtu/hr, combusting refinery fuel gas, installed in 1992 and exhausting to stack 74. Under 40 CFR 63, Subpart UUU, process vents on the CCR are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the CCR Platformer Unit, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the CCR is considered an affected facility.
- (x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.
- (3) One (1) Tail Gas Treating Unit (TGTU) Incinerator (520-H-162), identified as 124-3, with a maximum process flow rate of 48,000 dry standard cubic feet per day, and exhausting through one (1) stack identified as 124-3, constructed in 2005.
- (4) One (1) Sour Flare (520-H-163), identified as 124-4, with a maximum burner capacity of 0.92 MMBtu per hour, and a maximum process flow rate of 200 standard cubic feet per hour, and exhausting through one (1) stack identified as 124-4, constructed in 2005. Under 40 CFR 60, Subpart J, the Sour Flare, is considered an affected facility by the Consent Decree as of March 31, 2013.

Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements****[326 IAC 2-7-5(1)]****G.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart UUU.



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- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

G.3.2 Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units NESHAP [40 CFR Part 63, Subpart UUU] [326 IAC 20-50]

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The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart UUU, which are incorporated by reference as 326 IAC 20-50 (included as Attachment Q to the operating permit), for the emissions unit(s) listed above.

- (1) 40 CFR 63.1560
- (2) 40 CFR 63.1561
- (3) 40 CFR 63.1562
- (4) 40 CFR 63.1563
- (5) 40 CFR 63.1564
- (6) 40 CFR 63.1565
- (7) 40 CFR 63.1566
- (8) 40 CFR 63.1567
- (9) 40 CFR 63.1568
- (10) 40 CFR 63.1569
- (11) 40 CFR 63.1570
- (12) 40 CFR 63.1571
- (13) 40 CFR 63.1572
- (14) 40 CFR 63.1573
- (15) 40 CFR 63.1574
- (16) 40 CFR 63.1575
- (17) 40 CFR 63.1576
- (18) 40 CFR 63.1577
- (19) 40 CFR 63.1578
- (20) 40 CFR 63.1579
- (21) Tables 1-44

**SECTION G.4****40 CFR 63, Subpart ZZZZ****Emission Unit Description:**

## Insignificant Activities

- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
- (1) One (1) diesel fired emergency generator, installed in 1967, identified as 700-P31 Golf Course pond pump, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (2) One (1) diesel fired emergency generator, installed in 1984, identified as 1000-P33B, with a maximum heat input of 240 hp (180 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (3) One (1) diesel fired emergency generator, installed in 2002, identified as Main Office Generator, with a maximum heat input of 50 hp (37 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (4) One (1) diesel fired emergency generator, installed in 2006, identified as 700-C8 Air Compressor, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (5) One (1) diesel fired emergency generator, installed in 2006, identified as 700-G2 Boilerhouse, with a maximum heat input of 393 hp (293 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.
- (f) Stationary fire pump engines.
- (1) One (1) diesel fired emergency generator, installed in 1992, identified as 700-P32 No. 2 Fire Pond pump, with a maximum heat input of 302 hp (225 KW). Under 40 CFR 63, Subpart ZZZZ this is an affected unit.

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- (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

#### **G.4.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### **G.4.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]**

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 (included as Attachment R to the operating permit), for the emission unit(s) listed above.

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585 (a), (b)
- (3) 40 CFR 63.6590 (a), (c)
- (4) 40 CFR 63.6595 (a)
- (5) 40 CFR 63.6602
- (6) 40 CFR 63.6604 (b)
- (7) 40 CFR 63.6625 (e), (f), (h), (i)
- (8) 40 CFR 63.6640 (a), (b), (f)
- (9) 40 CFR 63.6645 (f)
- (10) 40 CFR 63.6660
- (11) 40 CFR 63.6665
- (12) 40 CFR 63.6670
- (13) 40 CFR 63.6675
- (14) Table 2c
- (15) Table 6
- (16) Table 8

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**SECTION G.5**

**40 CFR 63, Subpart DDDDD**

**Emission Unit Description:**

- (b) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
  - (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
- (f) One (1) Crude heater equipped with a Low-NO<sub>x</sub> burner, identified as 200-H2 with a maximum heat input rate of 131 MMBtu/hr, combusting refinery fuel gas, installed in 1955 and exhausting to stack 1. Under 40 CFR 63, Subpart DDDDD the Crude heater is considered an affected facility.
- (g) One (1) Unifiner heater, identified as 400-H5 with a maximum heat input rate of 20 MMBtu/hr, combusting refinery fuel gas, installed in 1959 and exhausting to stack 2. Under 40 CFR 63, Subpart DDDDD the Unifiner heater is considered an affected facility.
- (h) One (1) Cycle oil heater, identified as H-H2 with a maximum heat input rate of 10 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 3. Under 40 CFR 63, Subpart DDDDD the Cycle oil heater is considered an affected facility.
- (i) One (1) Naphtha splitter heater, identified as 900-H1 with a maximum heat input rate of 12.2 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 4. Under 40 CFR 63, Subpart DDDDD the Naphtha splitter heater is considered an affected facility.
- (j) One (1) Vacuum heater, identified as 200-H4 with a maximum heat input rate of 14.1 MMBtu/hr, combusting refinery fuel gas, installed in 1950, approved to be modified in 2007, and exhausting to stack 5. Under 40 CFR 63, Subpart DDDDD the Vacuum heater is considered an affected facility.
- (k) One (1) Old Platformer heater, identified as Naphtha Splitter Reboiler 900-H2 with a maximum heat input rate of 27 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 6. Under 40 CFR 63, Subpart DDDDD the Old Platformer heater is considered an affected facility.
- (l) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
  - (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.

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- (m) One (1) Auxiliary crude heater, identified as 200-H1 with a maximum heat input rate of 10.1 MMBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 11. Under 40 CFR 63, Subpart DDDDD the Auxiliary crude heater is considered an affected facility.
- (n) One (1) Platformer stabilizer reboiler, identified as 300-H4 with a maximum heat input rate of 5.92 MMBtu/hr, combusting refinery fuel gas, installed in 1956 and exhausting to stack 12. Under 40 CFR 63, Subpart DDDDD the Platformer stabilizer reboiler is considered an affected facility.
- (o) One (1) no. 1 boiler, constructed in 1957, with a maximum heat input rate of 52 MMBtu/hr of process gas, identified as B1 and exhausting to stack 8. Under 40 CFR 63, Subpart DDDDD the no. 1 boiler is considered an affected facility.
- (p) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.
- (q) One (1) Vacuum heater husky, identified as 200-H3 with a maximum heat input rate of 6.27 MMBtu/hr, combusting refinery fuel gas, installed in 1963 and exhausting to stack 64. Under 40 CFR 63, Subpart DDDDD the Vacuum heater husky is considered an affected facility.
- (r) One (1) CCR Platformer Unit which includes one (1) CCR Platformer Heater, identified as 300 - H1, H2, H3 with a maximum heat input rate of 70.3 MMBtu/hr, combusting refinery fuel gas, installed in 1992 and exhausting to stack 74. Under 40 CFR 63, Subpart UUU, process vents on the CCR are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the CCR Platformer Unit, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the CCR is considered an affected facility.
- (v) One (1) Hydrotreating Unit Reactor charge heater, identified as 210-H-100, with a maximum heat input rating of 30 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 122, constructed in 2005. Under 40 CFR 63, Subpart DDDDD, the Hydrotreating Unit Reactor charge heater is considered an affected facility.
- (w) One (1) Hydrotreating Unit Reboiler Stabilizer, identified as 210-H-101, with a maximum heat input rating of 19.94 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 123 constructed in 2005. Under 40 CFR 60, Subpart J, the Hydrotreating Unit Reboiler Stabilizer, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Hydrotreating Unit Reboiler Stabilizer is considered an affected facility.
- (y) One (1) Vacuum heater, identified as 200-H6, with a maximum heat input rate of 5.49 MMBtu/hr, combusting refinery fuel gas and natural gas as a backup, installed in 2005 and exhausting to stack 126. Under 40 CFR 60, Subpart J, the vacuum heater, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Vacuum heater is considered an affected facility.
- (z) One (1) boiler identified as B4, constructed in 2006, with a maximum heat input rate of 84.9 MMBtu/hr of process gas and/or natural gas, identified as B4 and exhausting to stack 131. Under 40 CFR 60, Subpart Dc, the boiler identified as boiler B4 above is considered an affected facility. Under 40 CFR Part 60, Subpart J, the boiler identified as boiler B4 above, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B4 is considered an affected facility.

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- (aa) (1) LSG Reactor Charge Heater, identified as (810-H101), approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

#### **G.5.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### **G.5.2 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]**

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD, which are incorporated by reference as 326 IAC 20-95 (included as Attachment S to the operating permit), for the emission unit(s) listed above.

- (1) 40 CFR 63.7480
- (2) 40 CFR 63.7485
- (3) 40 CFR 63.7490 (a), (b), (d)
- (4) 40 CFR 63.7495 (a), (d)
- (5) 40 CFR 63.7499
- (6) 40 CFR 63.7500 (a), (e)
- (7) 40 CFR 63.7501
- (8) 40 CFR 63.7505 (a)
- (9) 40 CFR 63.7510 (a – e), (g)
- (10) 40 CFR 63.7515
- (11) 40 CFR 63.7520
- (12) 40 CFR 63.7521 (a), (b), (f)(1)
- (13) 40 CFR 63.7525 (a)
- (14) 40 CFR 63.7530
- (15) 40 CFR 63.7535
- (16) 40 CFR 63.7540
- (17) 40 CFR 63.7545 (a), (c-e)
- (18) 40 CFR 63.7550
- (19) 40 CFR 63.7555
- (20) 40 CFR 63.7560

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- (21) 40 CFR 63.7565
- (22) 40 CFR 63.7570
- (23) 40 CFR 63.7575
- (24) Table 2
- (24) Table 3
- (25) Table 5
- (26) Table 7
- (27) Table 8
- (28) Table 9
- (29) Table 10

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: CountryMark Refining and Logistics, LLC  
Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
Part 70 Permit No.: T129-35008-00003

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:



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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT****OFFICE OF AIR QUALITY****COMPLIANCE AND ENFORCEMENT BRANCH****100 North Senate Avenue****MC 61-53 IGCN 1003****Indianapolis, Indiana 46204-2251****Phone: 317-233-0178****Fax: 317-233-6865****PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: CountryMark Refining and Logistics, LLC  
Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
Part 70 Permit No.: T129-35008-00003

**This form consists of 2 pages****Page 1 of 2**

- ☐ This is an emergency as defined in 326 IAC 2-7-1(12)

  - The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

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If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: CountryMark Refining and Logistics, LLC  
Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
Part 70 Permit No.: T129-35008-00003  
Facility: Boiler B5  
Parameter: NOx emissions  
Limit: shall not exceed 31.05 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER:

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: CountryMark Refining and Logistics, LLC  
 Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
 Part 70 Permit No.: T129-35008-00003

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70 Significant Source  
Modification and Significant Permit Modification**

<b>Source Description and Location</b>
--

<b>Source Name:</b>	<b>CountryMark Refining and Logistics, LLC</b>
<b>Source Location:</b>	<b>1200 Refinery Road, Mount Vernon, IN 47620</b>
<b>County:</b>	<b>Posey</b>
<b>SIC Code:</b>	<b>2911 (Petroleum Refining)</b>
<b>Operation Permit No.:</b>	<b>T 129-35008-00003</b>
<b>Operation Permit Issuance Date:</b>	<b>May 1, 2015</b>
<b>Significant Source Modification No.:</b>	<b>129-37428-00003</b>
<b>Significant Permit Modification No.:</b>	<b>129-37429-00003</b>
<b>Permit Reviewer:</b>	<b>Kristen Willoughby</b>

<b>Source Definition</b>
--------------------------

This source definition for this source is incorporated into this permit as follows:

This petroleum refinery and marine vessel loading and unloading river dock terminal consists of two (2) plants:

- (a) Plant 1 is located at 1200 Refinery Road, Mount Vernon, IN 47620; and
- (b) Plant 2 is located at South Mann St. and West Ohio St., Mount Vernon, IN 47620.

However, these plants are located on one or more adjacent properties, have the same two digit SIC code and a support relationship, and are still under common ownership, therefore they are considered one (1) major source, as defined by 326 IAC 2-7-1(22).

A Part 70 Operating permits will be issued to CountryMark Refining and Logistics, LLC (129-00003). A separate Administrative Part 70 permit will be issued to CountryMark Cooperative, LLP (129-00037), solely for administrative purposes. This conclusion was initially determined under Significant Permit Modification (129-17940-00003) issued on November 24, 2003.

<b>Existing Approvals</b>
---------------------------

The source was issued Part 70 Operating Permit Renewal No. 129-35008-00003 on May 1, 2015. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Administrative Amendment	129-35935-00003	July 17, 2015

<b>County Attainment Status</b>
---------------------------------

The source is located in Posey County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Posey County has been classified as attainment for PM<sub>2.5</sub>. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**  
 Posey County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### Fugitive Emissions

Since this source is classified as a petroleum refinery it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

### Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146\\_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

### Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Process / Emission Unit	Source-Wide Emissions Before Modification (ton/year)								
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Single HAP*	Combined HAPs
Total for Source	>100	>100	>100	>100	>100	>100	>100	>10	>25
PSD Major Source Thresholds	100	100	100	100	100	100	100	--	--

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO, is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based on Administrative Amendment No. 129-35935-00003.

### Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application, submitted by CountryMark Refining and Logistics, LLC on July 25, 2015, relating to the following:

#### FCC Reactor/Regenerator

The FCC reactor and regenerator revisions will allow for operation at higher conversion increasing unit flexibility and potentially longer intervals between turnarounds. This revamp of the FCC qualifies as a modification for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and carbon monoxide (CO) under new source performance standards since short term emission rates are increasing. NSPS Subpart Ja limitations will be applicable for NO<sub>x</sub>, SO<sub>2</sub> and CO. The Consent Decree deems the FCC regenerator subject to NSPS Subpart J no later than 12/31/17. To meet the particulate emission limitation of Subpart J, an electrostatic precipitator (ESP) will be added to the FCC unit. CountryMark proposes to monitor particulate emissions at the outlet of the ESP with a particulate matter (PM) continuous emission monitoring system (CEMS) and discontinue opacity monitoring with the continuous opacity monitoring system.

The FCC revamp activities are listed below.

#### FCC Reactor 500-V8

Replace existing equipment with new equipment as follows:

- New cold wall reactor
- New primary cyclone (one 55") close coupled to the reactor riser outlet and dipleg
- New secondary cyclone (one 45") and dipleg

The reactor is currently equipped with a 41" primary cyclone and no secondary cyclone.

#### FCC Regenerator 500-V5

Replace existing equipment with new equipment as follows:

- New regenerator head, internal plenum, and a portion of the regenerator shell
- Two new sets of replacement regenerator cyclones



- New spent catalyst air distributor
- Replace startup/hot standby oil nozzle insert (same size)
- New natural gas fired air preheater, replacing the 9 MMBtu/hr dual fuel (distillate and natural gas) air preheater (air preheater exhausts through the regenerator flue gas system).

The regenerator is currently equipped with two sets of two stage cyclones, 3' 10" and 3' 11" in diameter. The new sets of cyclones will be 4' 3" and 4' 2" in diameter.

#### Flue Gas System

- New Electrostatic Precipitator (ESP)
- Particulate matter continuous emission monitor (PM CEMS)
- Modified Flue Gas Cooler

#### FCC Riser

Replace existing equipment with new equipment as follows:

- New external cold wall reactor riser
- New slurry feed nozzle insert
- Four new feed nozzle inserts
- New "Wye" steam sparger
- New Bio Gas Oil feed nozzle

#### FCC Main Fractionator Column

The FCC unit will be debottlenecked by enhancing cooling and condensing and reducing pressure drop through the Main Fractionator. In addition, more light cycle oil (distillate oil) will be separated from the slurry oil stream. The proposed project will also improve reliability by installing a light cycle oil cooler and increasing overhead and compressor second stage wash water.

The FCC Main Fractionator revamp activities are listed below.

#### Revisions to existing equipment:

- Replace slurry PA packing and distributor
- Replace LCO draw nozzle, increase size
- Replace LCO PA packing and distributor
- Replace LCO/Naphtha trays with packing
- Repurpose or abandon 500-E-109 heat exchanger
- Revise Main Fractionator overhead piping to gas plant
- Replace LCO pump
- Replace interstage water booster pump

#### New equipment:

- Quench distributor
- Air cooled heat exchanger system
  - 500-E107B
  - 500- Exxx (parallel with E-109)
  - 500 - Exxx (upstream of E110)
  - 800-E7

The FCC unit changes result in increased utilization of the following existing process emission sources:

- FCC Preheater, Alkylation Unit Heater and LSG Reactor Charge Heater – increased refinery fuel gas combustion. An increase in the permitted capacity of the FCC Preheater and LSG Reactor Charge Heater is necessary as part of this project.
- Boiler 5 - increased steam demand
- #1 N and S cooling towers – increased water recirculation rate
- FCC Gasoline and Alkylate storage – increased throughput
- Gasoline Loading Rack – increased gasoline throughput

### **Alkylation unit modifications**

A project is proposed to add a new isostripper tower and heat exchange equipment to the alkylation unit, and repurpose several existing vessels. The project is intended to improve fractionation between Alkylate product and butane streams, increasing isobutane recycle purity, normal butane purity and improve Alkylate product properties. No emission sources other than emissions from fugitive emission components (valves and connectors) are involved with this unit revision.

The Alkylation unit revision activities are listed below.

#### **Revisions to existing equipment:**

- Replace trays in 100-V12 Depropanizer Column
- Repurpose vessels 100-V11 and 100-V7, heat exchanger 100-E11 C/D, Pump 100-P6A (existing equipment will now handle different streams as result of new 100-V6)

#### **New equipment:**

- 100-V6 Isostripper Tower
- 100-E7 Isostripper reboiler heat exchanger
- 100-V13 Depropanizer Receiver (replace existing vessel)
- Replace 100-V14 HF Stripper feed nozzle
- Connecting piping for new equipment

The changes in the Alkylation unit do not impact other emission sources.

### **Sats Gas Unit**

A project is proposed to add a Sats Gas unit to the refinery. The Sats Gas unit will receive off-gases from other refinery units that are currently introduced to the FCC unit overhead and Gas Concentration sections. The Sats Gas unit will provide steam stripping, propane and butane separation of these incoming gases.

The Sats Gas unit installation activities are listed below.

- Fugitive emissions components on vessels, towers and piping (valves, pumps, connectors, compressors)
- New LPG Storage (two 60,000 gallon pressure vessels)
- New Premium Floating Roof Gasoline Tank

### **New petroleum storage tanks**

To enhance slop oil management within the refinery, two new 5,500 barrel floating roof tanks are proposed. The tanks functionally replace the existing cone roof tanks 4, 5, and 6. Tank 4 will be demolished and tanks 5 and 6 will continue in distillate service or be abandoned in place.

### **40 CFR 63, Subpart DDDDD applicability**

Subpart DDDDD was listed as applicable for the Claus Unit startup and TGTU incinerator burner. They are not burners to provide heat to create steam or hot water and the burner is in direct contact with the process materials, which means they are not process heaters either (per boiler and process heater definitions under 40 CFR 63.7575). These were mistakenly included in the list of Subpart DDDDD affected facilities when DDDDD was added to the permit some years ago. Please correct this.

### **Storage tanks not constructed**

Please remove tanks 174 and 175 from the permit as they were never constructed.

The following is a list of the proposed and modified emission units and pollution control device(s):

- (a) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
  - (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr),

combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9.

- (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10.
  - (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (b) One (1) Alkylolation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
- (1) Leaks from process equipment, including valves, pumps, and flanges.
- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:
- (1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (2) Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.
  - (3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.
- (d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135

- (e) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
- (1) LSG Reactor Charge Heater, identified as 810-H101, approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu, combusting refinery fuel gas only, and venting to stack 128.

### **Project Aggregation**

IDEM, OAQ received one application from CountryMark Refining and Logistics, LLC and has been notified of a second project as follows:

1. The FCC project (described above).
2. A proposed catalyst additive trial. The catalyst additive would be used at the Fluidized Catalytic Cracking Unit (FCC) on a trial basis beginning in October 2016 and running 90 days at most. If the trial is successful, the additive would be used to enhance olefin production primarily during gasoline season (April 1<sup>st</sup> to October 1<sup>st</sup>) when reactor temperatures are limited by the physical condition of the reactor.

The following explanation was provided by the Permittee as to why these two projects should be reviewed separately for permitting purposes:

The proposed catalyst additive trial is independent of the FCC project taking place in November 2017. The catalyst additive would be used in 2017, prior to the FCC project, and then in the future if there came a time when reactor temperatures were again limited. The catalyst additive technology has existed for decades to optimize yields of olefins and improve FCC gasoline quality. No physical equipment changes are involved with the catalyst additive trial.

The increase in particulate matter (PM) emissions from the FCC regenerator stack and the volatile organic compounds (VOC) from the increased production of alkylate downstream of the FCC have been evaluated and the increase in emission levels due to the trial fall into the insignificant activity range on a short term (lb/hr) basis and below the minor source modification thresholds on a long term (ton/yr) basis assuming worst case trial emissions if the trial were run 8,760 hr/yr. The trial is expected to have little or no effect on FCC regenerator emissions of nitrogen oxide, sulfur dioxide, volatile organic compounds or carbon monoxide emissions. The use of the catalyst will not result in other upstream or downstream operations at the refinery.

<b>Enforcement Issues</b>
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There are no pending enforcement actions related to this modification.

<b>Emission Calculations</b>
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See Appendix A and Appendix B of this Technical Support Document for detailed emission calculations.

<b>Permit Level Determination – Part 70 Modification to an Existing Source</b>
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Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

PTE Before Controls of the New Emission Units (ton/year)									
Process / Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Single HAP (hydrogen cyanide)	Combined HAPs
New Sats Gas valves, flanges, compressor	-	-	-	-	-	0.31	-	-	3.0E-03
New Alkylation unit tower valves, flanges	-	-	-	-	-	0.06	-	-	1.6E-03
New Premium tank	-	-	-	-	-	2.75	-	-	0.09
New LPG tanks	-	-	-	-	-	4.5E-03	-	-	-
New tank 4A	-	-	-	-	-	1.29	-	-	0.04
New tank 4B	-	-	-	-	-	1.29	-	-	0.04
Total:	-	-	-	-	-	5.71	-	-	0.18

PTE Change of the Modified Emission Unit(s)/Process (ton/year)									
500-V5	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Single HAP (hydrogen cyanide)	Combined HAPs
PTE Before Modification	56.09	44.10	19342	145.64	10.82	0.24	2.14	11.65	15.45
PTE After Modification	56.89	44.73	19.70	151.42	10.97	0.24	21.95	26.33	30.19
PTE Increase From Modification	0.74	0.58	0.26	5.63	0.14	0	21.95	14.66	14.71

PTE Change of the Modified Emission Unit(s)/Process (ton/year)									
500-H-101	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Single HAP (hydrogen cyanide)	Combined HAPs
PTE Before Modification	0.17	0.67	0.67	0.15	8.81	0.48	7.40	-	0.17
PTE After Modification	0.18	0.72	0.72	0.16	9.49	0.52	7.97	-	0.18
PTE Increase From Modification	0.01	0.05	0.05	0.01	0.68	0.04	0.57	-	0.01

	<b>PTE Change of the Modified Emission Unit(s)/Process (ton/year)</b>								
<b>800-H-101</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>Single HAP (hydrogen cyanide)</b>	<b>Combined HAPs</b>
PTE Before Modification	0.06	0.22	0.22	0.05	1.19	0.16	2.45	-	0.05
PTE After Modification	0.06	0.23	0.23	0.05	1.26	0.17	2.58	-	0.06
PTE Increase From Modification	0.00	0.01	0.23	0.00	0.06	0.01	0.13	-	2.89E-03

	<b>PTE Change of the Modified Emission Unit(s)/Process (ton/year)</b>								
<b>Cooling Towers #1N and #1S</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>Single HAP (hydrogen cyanide)</b>	<b>Combined HAPs</b>
PTE Before Modification	4.95	4.95	4.95	-	-	0.87	-	-	-
PTE After Modification	5.36	5.36	5.36	-	-	0.97	-	-	-
PTE Increase From Modification	0.41	0.41	0.41	-	-	0.07	-	-	-

	<b>Total PTE Increase Due to the Modification (ton/year)</b>								
	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>Single HAP (hydrogen cyanide)</b>	<b>Combined HAPs</b>
PTE of New Emission units	-	-	-	-	-	5.71	-	-	0.18
PTE Increase of Modified Emission Units/Process	1.16	1.05	0.72	5.64	0.89	0.12	0.70	14.66	14.72
<b>Total PTE of the Modification</b>	<b>1.16</b>	<b>1.05</b>	<b>0.72</b>	<b>5.64</b>	<b>0.89</b>	<b>5.83</b>	<b>0.70</b>	<b>14.66</b>	<b>14.72</b>

Appendix B of this TSD reflects the potential emissions of the modification in detail.

- (a) Approval to Construct  
 Pursuant to 326 IAC 2-7-10.5(g)(6) and 326 IAC 2-7-10.5(b)(2), a Significant Source Modification is required because this modification has a potential to emit greater than or equal to ten (10) tons per year of a single HAP and is incorporating requirements set forth in a federal consent decree.
- (b) Approval to Operate  
 Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification does not qualify as a Minor Permit Modification or as an Administrative Amendment.

Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification makes a significant change to existing monitoring conditions.

<b>PSD Evaluation – Actual to Potential (ATP) and Actual to Projected Actual (ATPA) Emissions Test</b>
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(a) “Hybrid” Applicability Test: ATP and ATPA

The source opted to use a Hybrid applicability test, specified in 326 IAC 2-2-2(d)(5), to demonstrate that the modification is not subject to PSD major review. A Hybrid applicability test uses both the Actual to Potential (ATP) for new emissions units and Actual to Projected Actual (ATPA) for existing emissions units affected by the modification.

The source has provided information and emission calculations as part of the application for this Hybrid test. IDEM, OAQ reviewed the emission calculations provided by the source to verify the emissions factors and methodology used, but has not made any determination regarding the validity and accuracy of certain information such as actual throughput, actual usage and actual hours of operation.

The source will be required to keep records and report in accordance with the requirements of 326 IAC 2-2-8 (Prevention of Significant Deterioration (PSD) Requirements: Source Obligation).

(b) New Emissions Units and Existing Emissions Units Affected by the Modification

This project involves both new emissions units and existing emission units affected by the modification.

(1) New Emissions Unit

Pursuant to 326 IAC 2-2-1(t)(1), a new emissions unit is any emissions unit that is, or will be, newly constructed and that has existed for less than two (2) years from the date the emissions unit first operated.

(2) Existing Emissions Unit Affected by the Modification

The following emissions units will be considered existing for the purpose of ATPA:

- (A) The new emission units, which are replacing existing emissions units, which are nearly equal capacity that serves the same purpose without increasing the emissions. A replacement emissions unit is an existing emissions unit. [326 IAC 2-2-1(t)(2)].
- (B) Modified emissions units.
- (C) Emissions Units that will not be modified; however, they will experience increased or decreased utilization as part of this project.

The following emissions unit(s) are considered as new emissions units for this evaluation.

- (1) Alkylation Unit, including the following emission sources: Leaks from process equipment, including valves, pumps, and flanges.
- (2) Sats Gas Unit, including the following emission sources: Tank 1000-T400, Two (2) LPG storage tanks, and leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.
- (3) Tanks 4A and 4B.

The following emissions unit(s) will be considered as existing emissions units for this evaluation.

- (1) Fluidized Catalytic Cracking Unit (FCCU), including the following emission sources: Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater and FCCU regenerator.
- (2) Alkylation Unit, including the following emission sources: Alkylation unit heater.
- (3) Boiler B5
- (4) Low Sulfur Gasoline (LSG) Unit, including the following emission sources: LSG Reactor Charge Heater

- (5) Tail Gas Treatment System and Sulfur Recovery System
  - (6) Tank 40
  - (7) Tank 50
  - (8) Truck Loading Rack
  - (9) Cooling Tower #1 N&S
- (c) Baseline Actual Emissions
- (1) New Emissions Unit  
For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of the unit shall equal zero (0) and thereafter, for all other purposes, shall equal the unit's potential to emit.
  - (2) Existing Emissions Unit  
The baseline actual emissions from the existing emission units involved in this ATPA applicability test are based on their emissions from June 1, 2014 through May 31, 2016.
- (d) Hybrid Test: ATP and ATPA Summary  
Since this project involves both new emissions units and existing emission units, pursuant to 326 IAC 2-2-2(d)(5), an Hybrid applicability test has been conducted. The emissions increase of the project is the sum of the emissions increase for each emissions unit, calculated using the Actual to Potential (ATP) evaluation for the new units and the Actual to Projected Actual (ATPA) evaluation for **each existing emissions unit**.

Pursuant to 326 IAC 2-2-1(pp)(A)(iii), the source may exclude, in calculating any increase in emissions that result from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth.

$$\text{Hybrid Applicability Test} = \text{ATP}_{(\text{new unit})} + \text{ATPA}_{(\text{existing unit})}$$

Where:

$$\text{ATP}_{(\text{new unit})} = \text{PTE} - 0$$

$$\text{ATPA}_{(\text{existing unit})} = \text{Projected Actual Emissions} - \text{Baseline Emissions} \\ - \text{Could Have Accommodated Emissions/Demand Growth Exclusions}$$

See Appendix A of this Technical Support Document for detailed emission calculations.

New Emissions Units (ton/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
New Premium tank 1000-T400	-	-	-	-	-	2.75	-	-	-	-	-
New Sats Gas Unit fugitive components	-	-	-	-	-	0.31	-	-	-	-	-
Two new LPG storage tanks (pressure tanks) fugitive components	-	-	-	-	-	4.49E-03	-	-	-	-	-



New Emissions Units (ton/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
New 5500 BBI IFR tank 4A	-	-	-	-	-	1.29	-	-	-	-	-
New 5500 BBI IFR tank 4B	-	-	-	-	-	1.29	-	-	-	-	-
New Alkylation Unit Column	-	-	-	-	-	0.06	-	-	-	-	-
<b>Total New Units</b>	-	-	-	-	-	5.71	-	-	-	-	-

Existing Emissions Unit ATPA (tons/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
FCCU Regenerator											
Projected Actual Emissions	3.05	2.40	1.06	11.96	9.81	0.22	19.78	68,556	2.68E-05	2.39E-04	1.44E-04
Baseline Actual Emissions	43.11	33.90	14.93	10.11	8.32	0.18	16.63	57,212	2.24E-05	2.00E-04	1.20E-04
<b>ATPA</b>	<b>&lt;0</b>	<b>&lt;0</b>	<b>&lt;0</b>	<b>1.85</b>	<b>1.50</b>	<b>0.04</b>	<b>3.14</b>	<b>11,344</b>	<b>4.44E-06</b>	<b>3.96E-05</b>	<b>2.38E-05</b>
FCCU Preheater											
Projected Actual Emissions	0.18	0.72	0.72	0.16	9.49	0.52	7.97	8,804	-	4.75E-05	-
Baseline Actual Emissions	0.13	0.54	0.54	0.12	7.06	0.39	5.93	6,545	-	3.53E-05	-
<b>ATPA</b>	<b>0.05</b>	<b>0.19</b>	<b>0.19</b>	<b>0.04</b>	<b>2.44</b>	<b>0.13</b>	<b>2.05</b>	<b>2,259</b>	<b>-</b>	<b>2.97E-06</b>	<b>-</b>
Alkylation Unit Heater											
Projected Actual Emissions	0.11	0.46	.046	0.10	6.00	0.33	5.04	5,566	-	3.00E-05	-
Baseline Actual Emissions	0.10	0.41	0.41	0.09	5.41	0.30	4.54	5,016	-	2.70E-05	-
<b>ATPA</b>	<b>0.01</b>	<b>0.05</b>	<b>0.05</b>	<b>0.01</b>	<b>0.59</b>	<b>0.03</b>	<b>0.50</b>	<b>551</b>	<b>-</b>	<b>2.97E-06</b>	<b>-</b>
Boiler 5											
Projected Actual Emissions	0.46	1.84	1.84	0.40	5.84	1.33	20.36	22,485	-	1.21E-04	-
Baseline Actual Emissions	0.37	1.48	1.48	0.32	4.69	1.07	16.36	18,071	-	9.74E-05	-
<b>ATPA</b>	<b>0.09</b>	<b>0.36</b>	<b>0.36</b>	<b>0.08</b>	<b>1.15</b>	<b>0.26</b>	<b>4.00</b>	<b>4,414</b>	<b>-</b>	<b>2.38E-05</b>	<b>-</b>
LSG Heater											
Projected Actual Emissions	0.06	0.23	0.23	0.05	1.26	0.17	2.58	2,844	-	1.53E-05	-

Existing Emissions Unit ATPA (tons/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
Baseline Actual Emissions	0.05	0.22	0.22	0.05	1.18	0.16	2.41	2,666	-	1.44E-05	-
<b>ATPA</b>	<b>3.66E-03</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.08</b>	<b>0.01</b>	<b>0.16</b>	<b>179</b>	<b>-</b>	<b>9.63E-07</b>	<b>-</b>
Sulfur Recovery Unit											
Projected Actual Emissions	-	-	-	1.59	-	-	-	-	-	-	-
Baseline Actual Emissions	-	-	-	1.39	-	-	-	-	-	-	-
<b>ATPA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.20</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
FCC Gasoline Storage (Tank 40)											
Projected Actual Emissions	-	-	-	-	-	5.00E-03	-	-	-	-	-
Baseline Actual Emissions	-	-	-	-	-	4.40E-03	-	-	-	-	-
<b>ATPA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.98E-04</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Alkylate Storage (Tank 50)											
Projected Actual Emissions	-	-	-	-	-	0.20	-	-	-	-	-
Baseline Actual Emissions	-	-	-	-	-	0.19	-	-	-	-	-
<b>ATPA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4.83E-03</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Loading Rack											
Projected Actual Emissions	-	-	-	-	-	4.92	-	-	-	-	-
Baseline Actual Emissions	-	-	-	-	-	4.67	-	-	-	-	-
<b>ATPA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Cooling Tower #1 N&S											
Projected Actual Emissions	5.36	5.36	5.36	-	-	0.94	-	-	-	-	-
Baseline Actual Emissions	4.95	4.95	4.95	-	-	0.87	-	-	-	-	-
<b>ATPA</b>	<b>0.41</b>	<b>0.41</b>	<b>0.41</b>	<b>-</b>	<b>-</b>	<b>0.07</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Project Emissions (ton/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
Total New Units	-	-	-	-	-	5.71	-	-	-	-	-
FCCU Regenerator	<0	<0	<0	1.85	1.50	0.04	3.14	11,344	4.44E-06	3.96E-05	2.38E-05

Project Emissions (ton/year)											
Process/Emission Unit	PM	PM <sub>10</sub>	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Be	Pb	Hg
FCCU Preheater	0.05	0.19	0.19	0.04	2.44	0.13	2.05	2,259	-	2.97E-06	-
Alkylation Unit Heater	0.01	0.05	0.05	0.01	0.59	0.03	0.50	551	-	2.97E-06	-
Boiler 5	0.09	0.36	0.36	0.08	1.15	0.26	4.00	4,414	-	2.38E-05	-
LSG Heater	3.66E-03	0.01	0.01	0.00	0.08	0.01	0.16	179	-	9.63E-07	-
Sulfur Recovery Unit	-	-	-	0.20	-	-	-	-	-	-	-
FCC Gasoline Storage (Tank 40)	-	-	-	-	-	5.98E-04	-	-	-	-	-
Alkylate Storage (Tank 50)	-	-	-	-	-	4.83E-03	-	-	-	-	-
Loading Rack	-	-	-	-	-	0.26	-	-	-	-	-
Cooling Tower #1 N&S	0.41	0.41	0.41	-	-	0.07	-	-	-	-	-
<b>Project Emissions</b>	<b>0.56</b>	<b>1.01</b>	<b>1.01</b>	<b>2.18</b>	<b>5.75</b>	<b>6.52</b>	<b>9.85</b>	<b>18,746</b>	<b>4.44E-06</b>	<b>7.95E-05</b>	<b>2.38E-05</b>
Significant Levels	25	15	10	40	40	40	100	75,000 CO <sub>2</sub> e	4.00E-04	0.6	0.1
*PM2.5 listed is direct PM2.5.											

- (e) Conclusion  
 Based on this Hybrid applicability test, this proposed modification is not subject to PSD major review under 326 IAC 2-2-1, because the project emissions are less than the significance levels (i.e., the modification does not cause a significant emissions increase).

#### Federal Rule Applicability Determination

Due to the modification at this source, federal rule applicability has been reviewed as follows:

#### New Source Performance Standards (NSPS):

##### **40 CFR 60, Subpart J - Standards of Performance for Petroleum Refineries**

As required by Paragraph 17 and B.38 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003, the FCCU regenerator, identified as 500V-5 shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J and shall comply with the requirements of 40 CFR 60, Subparts A and J for SO<sub>2</sub>, CO and PM.

Additionally, as required by Paragraph 18 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to the termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the FCCU becomes subject to 40 CFR Part 60, Subpart Ja, due to a "modification" (as that term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for that regulated pollutant to which a standard applies as a result of the modification.

As a result of this proposed modification, the FCCU regenerator will be subject to the requirements of 40 CFR 60, Subpart Ja for SO<sub>2</sub> and CO (see 40 CFR 60, Subpart Ja applicability determination for further details).

The FCCU regenerator does not meet the definition of modification under 40 CFR 60.2 for PM since an ESP will be installed to ensure there will not be an increase in PM emissions. Therefore, the FCCU regenerator will still be subject to the requirements of 40 CFR 60, Subpart J for PM. However, pursuant to 40 CFR 60.11(e), the Permittee has requested to comply with these requirements by complying with 40 CFR 60, Subpart Ja.

The unit is subject to the following portions of Subpart J. immediately

- (1) 40 CFR 60.100 (e)
- (2) 40 CFR 60.101
- (3) 40 CFR 60.109

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the unit except as otherwise specified in 40 CFR 60, Subpart J.

**40 CFR 60, Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007**

The FCCU regenerator, identified as 500V-5 is subject to the New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, 40 CFR 60, Subpart Ja and 326 IAC 12, for NO<sub>x</sub>, SO<sub>2</sub>, and CO since it meets the definition of modification under 40 CFR 60.2 due to an increase in short term emission rates. The FCCU regenerator does not meet the definition of modification under 40 CFR 60.2 for PM since an ESP will be installed to ensure there will not be an increase in PM emissions. Pursuant to 40 CFR 60.100(e), the Permittee is choosing to comply with PM requirements of Subpart Ja to comply with Subpart J.

Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101, is subject to the New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, 40 CFR 60, Subpart Ja and 326 IAC 12, for SO<sub>2</sub> due to an increase in emissions.

LSG Reactor Charge Heater, identified as 810-H101, are subject to the New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007, 40 CFR 60, Subpart Ja and 326 IAC 12, because it will be constructed after May 14, 2007..

The unit is subject to the following portions of Subpart Ja.

- (1) 40 CFR 60.100a
- (2) 40 CFR 60.101a
- (3) 40 CFR 60.102a (a), (b), (c)(1), (g)
- (4) 40 CFR 60.104a (a), (c), (d), (e), (i)(4)(ii), (j),
- (5) 40 CFR 60.105a (a), (b)(1)(i), (d), (f), (g), (h), (i)
- (6) 40 CFR 60.107a (a)(2)
- (7) 40 CFR 60.108a (a), (b), (c)(4), (d)
- (8) 40 CFR 60.109a
- (9) Table 1

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the unit except as otherwise specified in 40 CFR 60, Subpart Ja.

**40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984**

This source is subject to the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb and 326 IAC 12, because the tanks were constructed after July 23, 1984 and have a capacity greater than 75 m<sup>3</sup>. The units subject to this rule includes the following:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135

This source is subject to the following portions of Subpart Kb.

- (1) 40 CFR 60.110b
- (2) 40 CFR 60.111b
- (3) 40 CFR 60.112b (a), (b)
- (4) 40 CFR 60.113b
- (5) 40 CFR 60.115b
- (6) 40 CFR 60.116b
- (7) 40 CFR 60.117b

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the units except as otherwise specified in 40 CFR 60, Subpart Kb.

**40 CFR 60, Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006**

This source is not subject to the New Source Performance Standard for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR 60, Subpart VVa), because it is not a synthetic organic chemical manufacturing industry as defined in 40 CFR 60.481a.

**40 CFR 60, Subpart GGGa -- New Source Performance Standards for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after November 7, 2006**

This source is subject to the New Source Performance Standards for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR 60, Subpart GGGa), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:

Each compressor, valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service constructed, reconstructed, or modified after November 7, 2006.

- (a) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
- (1) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.
- (b) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:
- (1) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.
- (c) One (1) Alkylolation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:
- (1) Leaks from process equipment, including valves, pumps, and flanges.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart GGGa.

- (1) 40 CFR 60.590a  
(2) 40 CFR 60.591a  
(3) 40 CFR 60.592a  
(4) 40 CFR 60.593a

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the units except as otherwise specified in 40 CFR 60, Subpart GGGa.

**40 CFR 60, Subpart NNN -- New Source Performance Standards for VOC Emissions from Synthetic Organic Chemical Manufacturing (SOCMI) Distillation Operations**

This source is not subject to the New Source Performance Standards for VOC Emissions from Synthetic Organic Chemical Manufacturing (SOCMI) Distillation Operations (40 CFR 60, Subpart NNN) because the FCCU and Sats Gas Units do not produce as a product, co-product, by-product or intermediate any of the chemicals listed in 40 CFR 60.667.

**National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 61):**

**40 CFR 61, Subpart J -- National Emission Standards for Hazardous Air Pollutants for Equipment Leaks (Fugitive Emission Sources) of Benzene**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants for Equipment Leaks (Fugitive Emission Sources) of Benzene (40 CFR 61, Subpart J) because it does not have any components in benzene service as defined in 40 CFR 61.111.

**40 CFR 61, Subpart V -- National Emission Standards for Hazardous Air Pollutants for Equipment Leaks (Fugitive Emission Sources)**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants for Equipment Leaks (Fugitive Emission Sources) (40 CFR 61, Subpart V) because it does not have any components in volatile hazardous air pollutant (VHAP) service as defined in 40 CFR 61.241.

**40 CFR 61, Subpart Y - National Emission Standards for Hazardous Air Pollutants for Benzene Emissions From Benzene Storage Vessels**

The requirements of the National Emission Standards for Hazardous Air Pollutants for Benzene Emissions From Benzene Storage Vessels (40 CFR 61, Subpart Y) are still not included in the permit because there are no storage vessel that store benzene having a specific gravity within the range of specific gravities specified in ASTM D836-84 for Industrial Grade Benzene, ASTM D835-85 for Refined

Benzene-485, ASTM D2359-85a or 93 for Refined Benzene-535, and ASTM D4734-87 or 96 for Refined Benzene-545 at the source.

**National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 63):**

**40 CFR 63, Subpart F -- National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry**

This source is not subject to National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (40 CFR 63, Subpart F) because it does not manufacture as a primary product and of the chemicals listed in 40 CFR 63.100(b)(1) or use as a reactant or manufacture as a product or co-product any of the chemicals listed in Table 2 of 40 CFR 63, Subpart F.

**40 CFR 63, Subpart G - National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater**

This source is not subject to National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (40 CFR 63, Subpart G) because this source is not subject to 40 CFR 63, Subpart F, as described above.

**40 CFR 63, Subpart H -- National Emission Standards for Hazardous Air Pollutants for Equipment Leaks**

The requirements of the National Emission Standards for Hazardous Air Pollutants for Equipment Leaks (40 CFR 63, Subpart H) are not included in this permit because the source is not subject to a specific subpart in 40 CFR 63 that references Subpart H.

**40 CFR 63, Subpart I -- National Emission Standards for Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks**

The requirements of the National Emission Standards for Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks (40 CFR 63, Subpart I) are not included in this permit because this source does not operate one of the processes listed in 40 CFR 63.190(b)(1)-(6).

**40 CFR 63, Subpart Q -- National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers (40 CFR 63, Subpart Q) because no chromium-based water treatment chemicals have been used in any cooling tower after the September 8, 1994 applicability date.

**40 CFR 63, Subpart CC -- National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries**

This source is subject to the National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries (40 CFR 63, Subpart CC), which is incorporated by reference as 326 IAC 20-16. The units subject to this rule include the following:

- (a) All miscellaneous process vents from petroleum refining process units;
- (b) All storage vessels associated with petroleum refining process units;
- (c) All wastewater streams and treatment operations associated with petroleum refining process units;
- (d) All equipment leaks from petroleum refining process units;
- (e) All gasoline loading racks classified under Standard Industrial Classification code 2911;
- (f) All marine vessel loading operations located at a petroleum refinery; and

- (g) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery.

Non applicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart CC.

- (1) 40 CFR 63.640
- (2) 40 CFR 63.641
- (3) 40 CFR 63.642
- (4) 40 CFR 63.643
- (5) 40 CFR 63.644
- (6) 40 CFR 63.645
- (7) 40 CFR 63.646
- (8) 40 CFR 63.648
- (9) 40 CFR 63.649
- (10) 40 CFR 63.652
- (11) 40 CFR 63.653
- (12) 40 CFR 63.655 (d), (e), (f), (g), (h), (i)(1)(iv)
- (13) 40 CFR 63.656
- (14) 40 CFR 63.660

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart CC.

**40 CFR 63, Subpart OO -- National Emission Standards for Hazardous Air Pollutants for Tanks -- Level 1**

This source is not subject to 40 CFR 63, Subpart OO because the source is not subject to another subpart of 40 CFR 60, 61, or 63 which references use of Subpart OO.

**40 CFR 63, Subpart TT -- National Emission Standards Hazardous Air Pollutants for Equipment Leaks - Control Level 1**

The requirements of the National Emission Standards Hazardous Air Pollutants for Equipment Leaks - Control Level 1 (40 CFR 63, Subpart TT) are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart TT.

**40 CFR 63, Subpart UU -- National Emission Standards for Hazardous Air Pollutants for Equipment Leaks - Control Level 2 Standards**

The requirements of the National Emission Standards for Hazardous Air Pollutants for Equipment Leaks - Control Level 2 Standards (40 CFR 63, Subpart UU) are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart UU.

**40 CFR 63, Subpart WW -- National Emission Standards for Hazardous Air Pollutants for Storage Vessels (Tanks) - Control Level 2**

The requirements of the National Emission Standards for Hazardous Air Pollutants for Storage Vessels (Tanks) - Control Level 2 (40 CFR 63, Subpart WW) are not included in this permit because there are no subparts of 40 CFR Part 63 that reference the use of Subpart WW.

**40 CFR 63, Subpart UUU -- National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**

This source is subject to the National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units (40 CFR 63, Subpart UUU), which is incorporated by reference as 326 IAC 20-50. The units subject to this rule include the following:

- (a) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:



- (1) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10.

Non applicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart UUU.

- (1) 40 CFR 63.1560
- (2) 40 CFR 63.1561
- (3) 40 CFR 63.1562
- (4) 40 CFR 63.1563
- (5) 40 CFR 63.1564
- (6) 40 CFR 63.1565
- (7) 40 CFR 63.1570
- (8) 40 CFR 63.1571
- (9) 40 CFR 63.1572
- (10) 40 CFR 63.1573
- (11) 40 CFR 63.1574
- (12) 40 CFR 63.1575
- (13) 40 CFR 63.1576
- (14) 40 CFR 63.1577
- (15) 40 CFR 63.1578
- (16) 40 CFR 63.1579
- (17) Tables 1-14, 40-44

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart UUU.

**40 CFR 63, Subpart FFFF -- National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (40 CFR 63, Subpart FFFF) because it does not satisfy the requirements of 40 CFR 63.2435(b)(1-3). This source does not use, process, or produce any of the organic HAPs listed in section 112(b) of the Clean Air Act or hydrogen halide and halogen HAP, as defined in 40 CFR 63.2250.

**40 CFR 63, Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

This source is subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD), which is incorporated by reference as 326 IAC 20-95. The unit subject to this rule include the following:

- (a) One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:
  - (1) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10.
- (b) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved in 2008 for construction and approved in 2016 for modification, with a maximum capacity of 6.3 MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128.

Nonapplicable portions of the NESHAP will not be included in the permit. This source is subject to the following portions of Subpart DDDDD:

- (1) 40 CFR 63.7480
- (2) 40 CFR 63.7485
- (3) 40 CFR 63.7490 (a), (b), (d)
- (4) 40 CFR 63.7495 (a), (d)
- (5) 40 CFR 63.7499
- (6) 40 CFR 63.7500 (a), (e)
- (7) 40 CFR 63.7501
- (8) 40 CFR 63.7505 (a)
- (9) 40 CFR 63.7510 (a – e), (g)
- (10) 40 CFR 63.7515
- (11) 40 CFR 63.7520
- (12) 40 CFR 63.7521 (a), (b), (f)(1)
- (13) 40 CFR 63.7525 (a)
- (14) 40 CFR 63.7530
- (15) 40 CFR 63.7535
- (16) 40 CFR 63.7540
- (17) 40 CFR 63.7545 (a), (c-e)
- (18) 40 CFR 63.7550
- (19) 40 CFR 63.7555
- (20) 40 CFR 63.7560
- (21) 40 CFR 63.7565
- (22) 40 CFR 63.7570
- (23) 40 CFR 63.7575
- (24) Table 2
- (24) Table 3
- (25) Table 5
- (26) Table 7
- (27) Table 8
- (28) Table 9
- (29) Table 10

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart DDDDD.

**40 CFR 63, Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63, Subpart JJJJJJ) because the source is a major source of HAPs.

**40 CFR 63, Subpart VVVVVV—National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources**

This source is not subject to the National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources (40 CFR 63, Subpart VVVVVV) because the source is a major source of HAPs.

**Compliance Assurance Monitoring (CAM):**

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:
  - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
  - (2) is subject to an emission limitation or standard for that pollutant; and

- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.
- (b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.
- (c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO<sub>2</sub> and NO<sub>x</sub> under the Acid Rain Program.
- (d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

The following table is used to identify the applicability of CAM to each existing emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

Emission Unit / Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
500 - PM	ESP	326 IAC 6-3-2	<100	<100	N <sup>1</sup>	N
500 - PM10	ESP	None	NA	NA	N <sup>2</sup>	N
500 - PM2.5	ESP	None	NA	NA	N <sup>2</sup>	N
500 - SO2	ESP	None	NA	NA	N <sup>2</sup>	N
Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy						
PM* Under 326 IAC 6-3-2. PM is limited as a surrogate for the Part 70 regulated pollutant, PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of PM10.						
N <sup>1</sup> CAM does not apply for PM10 because the uncontrolled PTE of PM10 is less than the major source threshold.						
N <sup>2</sup> The control device is not required to comply with the applicable emission limitation or standard. Therefore, based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable.						
Controls: BH = Baghouse, C = Cyclone, DC = Dust Collection System, RTO = Regenerative or Recuperative Thermal Oxidizer, WS = Wet Scrubber, ESP = Electrostatic Precipitator						
Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.						

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable to any of the new or modified units as part of this modification.

#### State Rule Applicability Determination

Due to the modification at this source, state rule applicability has been reviewed as follows:

#### Non-Federal Rule Consent Decree Emission Limitations and Standards

- (a) As required by Paragraph 17 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, by no later than December 31, 2017, the FCCU catalyst regenerator shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of 40 CFR 60, Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements, and specified in Section E.3 for PM applicable to the FCCU catalyst regenerator.
- (b) As required by Paragraph 18 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to the termination of the Consent Decree in Civil

No. 3:13-CV-00030-RLY-WGH, the FCCU becomes subject to 40 CFR Part 60, Subpart Ja, due to a "modification" (as that term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for that regulated pollutant to which a standard applies as a result of the modification.

- (c) As required by Paragraph 36 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, a heater or boiler becomes subject to 40 CFR 60, Subpart Ja for SO<sub>2</sub> due to a "modification" (as the term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for SO<sub>2</sub>.

### **326 IAC 2-2 (PSD) and 2-3 (Emission Offset)**

PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

### **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The operation of the FCCU Regenerator will emit equal to or greater than ten (10) tons per year for a single HAP AND/OR equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 would apply to the unit, however, pursuant to 326 IAC 2-4.1-1(b)(2), because this unit is specifically regulated by NESHAP 40 CFR 63, Subpart DDDDD, which was issued pursuant to Section 112(d), 112(h), or 112(j) of the CAA, this unit is exempt from the requirements of 326 IAC 2-4.1.

The operation of all other new / modified units will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

### **326 IAC 2-7-6(5) (Annual Compliance Certification)**

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

### **326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)**

Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).
- Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date (Modified Date)	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Units Subject to 326 IAC 6- 2-3	--	52	--	--	--	--
B4	2006	84.9	253.9	0.25	0.25	0.002
B5	2014	118.14	261.025	0.26	0.26	0.002
LSG Reactor Charge Heater	2008 <b>(2016)</b>	<del>5.985</del> <b>6.3</b>	<del>259.885</del> <b>261.34</b>	<del>0.28</del> <b>0.26</b>	<del>0.28</del> <b>0.26</b>	0.002
Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.						

### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the FCCU regenerator, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c). Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the FCCU shall not exceed 44.30 pounds per hour when operating at a process weight rate of 48.559 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The electrostatic precipitator shall be in operation at all times the FCCU is in operation, in order to comply with this limit.

### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2(b)(11), the noncontact cooling towers are exempt from the requirements of 326 IAC 6-3-2.

### 326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

This source is not subject to the provisions of 326 IAC 6-5. This rule applies to sources located in nonattainment areas for particulate matter or any new source of fugitive particulate matter emissions which has not received all the necessary preconstruction approvals before December 13, 1985. The source is not located in a nonattainment area and was constructed prior to the applicability date of the rule. Therefore, the requirements of 326 IAC 6-5 do not apply.

### 326 IAC 6.5 (PM Limitations Except Lake County)

This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

### 326 IAC 6.8 (PM Limitations for Lake County)

This source is not subject to 326 IAC 6.5 because it is not located in Lake County.

### 326 IAC 7-1.1 (Sulfur Dioxide Rules)

The Fluidized Catalytic Cracking Unit (FCCU) is subject to the requirements of 326 IAC 7-2 since it has potential SO<sub>2</sub> emissions greater than 25 tons per year. Pursuant to 326 IAC 7-2-1(c)(3), the source shall

submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

### **326 IAC 8-1-6 (VOC BACT)**

The total potential to emit VOC from this project is less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable to the new units.

### **326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)**

The Tank 1000-T400, Tank 4A, and Tank 4B are subject to the requirements of 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) because they are petroleum liquid storage tanks constructed after January 1, 1980, with a capacity greater than 39,000 gallons and contain a volatile organic liquid whose true vapor pressure is greater than 1.52 pounds per square inch (psi).

Pursuant to 326 IAC 8-4-3, the Permittee shall comply with the following:

- (a) Pursuant to 326 IAC 8-4-3(b), the Permittee shall not permit the use of an affected fixed roof tank unless:
  - (1) The facility has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall unless the source has been retrofitted with equally effective alternative control which has been approved.
  - (2) The facility is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.
  - (3) All openings, except stub drains, are equipped with covers, lids, or seals such that:
    - (A) the cover, lid, or seal is in the closed position at all times except when in actual use;
    - (B) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
    - (C) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.
- (b) Pursuant to 326 IAC 8-4-3(d), owners or operators of petroleum liquid storage vessels shall maintain records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed on the storage vessels. Such records shall be maintained for a period of two (2) years and shall be made available to the commissioner upon written request

### **326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**

The source is not subject to the requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because this source is not located in Lake, Porter, Clark or Floyd County.

### **326 IAC 8-18 (Synthetic Organic Chemical Manufacturing)**

The source is not subject to the requirements of 326 IAC 8-18 (Synthetic Organic Chemical Manufacturing) because they are not located in Lake or Porter County.

### **326 IAC 8-19 (Control of Volatile Organic Compound Emissions from Process Vents in Batch Operations)**

The source is not subject to the requirements of 326 IAC 8-19 (Control of Volatile Organic Compound Emissions from Process Vents in Batch Operations) because they are not located in Lake or Porter County.

### **326 IAC 10-4 (Nitrogen Oxide Budget Trading Program)**

This source is not subject to 326 IAC 10-4 because it does not contain an electricity generating unit or a large affected unit as defined in 326 IAC 10-4-2.

### Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

- (a) The Compliance Determination Requirements applicable to this modification are as follows: The electrostatic precipitator (500-ESP-101) for particulate control shall be in operation and control emissions from the FCCU regenerator facility at all times the FCCU regenerator is in operation.

Continuous emission monitoring systems for FCCU shall be calibrated, maintained, and operated for measuring PM which meet all applicable performance specifications of 326 IAC 3-5-2.

- (b) The Compliance Monitoring Requirements applicable to this proposed modification are as follows:

Emission Unit/Control	Operating Parameters	Frequency
FCCU regenerator (500-ESP-101)	PM CEMS	Continuous

These monitoring conditions are necessary because the 500-ESP-101 for the FCCU regenerator must operate properly to assure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-7 (Part 70), and 40 CFR 60, Subpart Ja.

There are no other new or modified compliance requirements included with this modification.

### Proposed Changes

The following changes listed below are due to the proposed modification. These changes may include Title I changes (ex changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

- (1) Condition A.3 and the Emission Unit Description Boxes have been revised to include the new/modified units and remove units that were not constructed.
- (2) Section D.1 was revised to due to the changes in capacity and control device for the FCCU regenerator and LSG Reactor Charge Heater, to incorporate requirements from paragraphs 17 and 18 of Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, and to incorporate the requirements of 326 IAC 7-2-1(c)(3).
- (3) Section D.2 was revised to include the new requirements for the new tanks Nos. 1000-T400, 4A, and 4B and to remove Tanks 174 and 175.
- (4) Section D.3 was revised to incorporate requirements from paragraph 36 of Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and 326 IAC 7-2-1(c)(3).

- (5) Condition E.4.2 was revised to include portions of 40 CFR 60, Subpart Ja applicable due to the modification.
- (6) Condition E.6.2 was revised to include portions of 40 CFR 60, Subpart Kb applicable due to the modification.
- (7) Condition G.2.2 was revised to include portions of 40 CFR 63, Subpart CC applicable due to the modification.
- (8) Condition G.3.2 was revised to include portions of 40 CFR 63, Subpart UUU applicable due to the modification.
- (9) Section G.5 was revised to remove units not subject to the rule.

#### **Additional Changes**

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

- (1) Typographical errors have been corrected throughout.
- (2) IDEM, OAQ has decided it is not necessary to list state rules in emission unit descriptions. Condition A.4 has been revised accordingly. Federal rule citations have been revised to be consistent throughout the permit.
- (3) On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule citations listed in the permit. These changes are not changes to the underlining provisions. The change is only to cite of these rules in Section C - Risk Management Plan.
- (4) IDEM, OAQ has updated the E, F, and G sections of the permit for clarity.
- (5) The Emergency Occurrence Report has been revised to match the underlying rule.
- (6) The Quarterly Report form has been modified to remove the numbered months. The Permittee should state which months are being reported.

The permit has been revised as follows:

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) \*\*\*
- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**
  - (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of ~~48.4~~ **19.5** million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in ~~1945~~ **1956 and approved in 2016 for modification**, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an



affected facility by the Consent Decree as of December 31, 2014. **Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>.** Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.

- (e2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of ~~380~~ **385** barrels fresh feed per hour, installed in 1950 **and approved in 2016 for modification**, controlled by an **electrostatic precipitator (500-ESP-101)** cyclone and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree ~~as of "Date of Entry"~~ **for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.**

- (3) **Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.**

- (c) **One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:**

- (1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (2) **Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.**

- (3) **Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.**

- (d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
1	fixed roof cone tank	404,418	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	075;
2	fixed roof cone tank	404,502	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	076;

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
3	fixed roof cone tank	404,334	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	077;
4	fixed roof cone tank	118,272	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	018;
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134
4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction)	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135
***							
174	fixed roof cone tank/insulated/heated cone tank	1,050,000	16,800	Residual Fuel Oil (No.6) or Petroleum Material with a vapor pressure equivalent to or less than 1.5 psi	2007	40 CFR 63, Subpart CC	129
175	fixed roof cone tank/internal floating roof tank/liquid mounted primary seal	2,310,000	210,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2008	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	130

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(I) **One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:**

- (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.
- (2) **Leaks from process equipment, including valves, pumps, and flanges.**

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- (x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.

- (1) One (1) Claus Unit Startup burner (SRU Burner 520-H-101), identified as 124-1, with a maximum heat input rating of 1.54 MMBtu per hour, combusting natural gas, and exhausting through one (1) stack identified as 124-1, constructed in 2005. Under 40 CFR 60, Subpart J, the Claus Unit Startup burner, is considered an affected facility. ~~Under 40 CFR 63, Subpart DDDDD, the Claus Unit Startup burner is considered an affected facility.~~
- (2) One (1) Tail Gas Treating Unit (TGTU) Incinerator burner (Claus Furnace 520-H-102), identified as 124-2, with a maximum heat input rating of 1.29 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a backup fuel, and exhausting through one (1) stack identified as 124-2, constructed in 2005. In the event of unscheduled shutdown of the CCR unit, the Sulfur Recovery Unit effluent will be routed directly to the TGTU incinerator. Under 40 CFR 60, Subpart J, the Tail Gas Treating Unit (TGTU) Incinerator burner, is considered an affected facility. ~~Under 40 CFR 63, Subpart DDDDD, the Tail Gas Treating Unit (TGTU) Incinerator burner is considered an affected facility.~~

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- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved ~~for in 2008 for construction in 2008~~ **and approved in 2016 for modification**, with a maximum capacity of ~~5,985~~ **6.3** MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

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A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. ~~[326 IAC 8-4-6]~~
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: ~~[326 IAC 6-3-2]~~
  - (1) Cutting torches.
  - (2) Soldering equipment.
  - (3) Welding equipment.
- (c) Paved and unpaved roads and parking lots with public access. ~~[326 IAC 6-4]~~
- (d) Asbestos abatement projects regulated by 326 IAC 14-10.
- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
  - (1) One (1) diesel fired emergency generator, installed in 1967, identified as 700-P31 Golf Course pond pump, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**

- (2) One (1) diesel fired emergency generator, installed in 1984, identified as 1000-P33B, with a maximum heat input of 240 hp (180 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (3) One (1) diesel fired emergency generator, installed in 2002, identified as Main Office Generator, with a maximum heat input of 50 hp (37 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (4) One (1) diesel fired emergency generator, installed in 2006, identified as 700-C8 Air Compressor, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (5) One (1) diesel fired emergency generator, installed in 2006, identified as 700-G2 Boiler house, with a maximum heat input of 393 hp (293 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
- (f) Stationary fire pump engines.
- (1) One (1) diesel fired emergency generator, installed in 1992, identified as 700-P32 No. 2 Fire Pond pump, with a maximum heat input of 302 hp (225 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
- (g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute as follows: Abrasive blasting. ~~[326 IAC 6-3-2]~~

(h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
- (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
- (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
- (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
- (5) For nitrogen oxides (NO<sub>x</sub>), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
- (6) For PM<sub>10</sub> or direct PM<sub>2.5</sub>, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.

- (A) Pipeline Valves - Gas, identified as 090. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (B) Pipeline Valves - Light Liquid, identified as 091. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (C) Pipeline Valves - Heavy Liquid, identified as 092. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (D) Pipeline Valves - Hydrogen, identified as 093. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (E) Open Ended Valves, identified as 094. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (F) Flanges, identified as 095. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (G) Pump Seals Light Liquid, identified as 096. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (H) Pump Seals Heavy Liquid, identified as 097. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (I) Compressor Seals - Gas, identified as 098. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (J) Compressor Seals - Heavy Liquid, identified as 099. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (K) Vessel Relief Valves, identified as 101. ~~[40 CFR 60, Subpart GGG]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit.**
- (L) Fugitive emissions from the Hydrotreater unit, Amine Unit, Sulfur Recovery Unit, Tail Gas Treatment Unit consisting of: ~~[40 CFR 60, Subpart GGG]~~ ~~[40 CFR 63, Subpart CC]~~  
**Under 40 CFR 60, Subpart GGG this is an affected unit. Under 40 CFR 63, Subpart CC this is an affected unit.**

- (1) pipeline Valves - Gas, identified as 090;
- (2) pipeline Valves - Light Liquid, identified as 091;
- (3) pipeline Valves - Heavy Liquid, identified as 092;
- (4) pipeline Valves - Hydrogen, identified as 093;
- (5) open Ended Valves, identified as 094;
- (6) Miscellaneous (Sampling, Blowing, Purging, etc.), identified as 073;
- (7) flanges, identified as 095;
- (8) pump Seals Light Liquid, identified as 096;
- (9) pump Seals Heavy Liquid, identified as 097;
- (10) compressor Seals - Gas, identified as 098;
- (11) compressor Seals - Heavy Liquid, identified as 099;

- (12) drains, identified as 100; and
- (13) vessel Relief Valves, identified as 101.
- (M) One (1) Miscellaneous operation (Sampling, Blowing, Purging, etc.), identified as 073. ~~[40 CFR 60, Subpart QQQ]~~ **Under 40 CFR 60, Subpart QQQ this is an affected unit.**
- (N) Drains, identified as 100. ~~[40 CFR 60, Subpart QQQ]~~ **Under 40 CFR 60, Subpart QQQ this is an affected unit.**

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C.13 Risk Management Plan [326 IAC 2-7-5(~~4211~~)] [40 CFR 68]

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SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**
  - (e2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of ~~380~~ **385** barrels fresh feed per hour, installed in 1950 and **approved in 2016 for modification**, controlled by an **electrostatic precipitator (500-ESP-101)** ~~exhaust~~ and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree as of "Date of Entry" for **particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.**
  - (3) **Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.**

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- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved ~~for in 2008 for~~ **construction in 2008 and approved in 2016 for modification**, with a maximum capacity of ~~5.985~~ **6.3** MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

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D.1.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the LSG Charge Reactor Heater shall be limited to ~~0.28~~ **0.26** pounds per MMBtu heat input.

D.1.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the FCCU ~~regenerator~~ shall not exceed ~~44.48~~ **44.30** pounds per hour when operating at a maximum process weight of ~~47.929~~ **48.559** tons per hour.

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D.1.3 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart J] [326 IAC 2-7-10.5]

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- (a)** As required by Paragraph 17 and B.38 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-33810-00003:
- (a1)** By no later than the "Date of Entry" of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the FCCU catalyst regenerator shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of 40 CFR 60, Subparts A and J and specified in Section E.3 for SO<sub>2</sub>, and CO applicable to the FCCU. Entry of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and compliance with the relevant monitoring requirements of Civil 3:13-CV-00030-RLY-WGH for the FCCU shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirement of 40 CFR 60.8(a).
- (b2)** By no later than March 31, 2013, the Sulfur Flare shall be an "affected facility" as that term is used in the NSPS at Subparts A and J, and shall be subject to and comply with the requirements of Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements. Consistent with language in 40 C.F.R. § 60.104(a)(1) at the time of the Lodging of this Decree, the combustion in the Sulfur Flare of process upset gases or fuel gas that is released to the Sulfur Flare as a result of relief valve leakage or other emergency malfunctions is exempt from the emissions limit in 40 C.F.R. § 60.104(a)(1). To the extent that the exemption in 40 C.F.R. § 60.104(a)(1) identified in the preceding sentence is amended at any time during the duration of this Consent Decree, the amended language shall apply and not the language in the preceding sentence. In lieu of a monitoring by means of a CEMS, CountryMark, prior to the Lodging of this Consent Decree, submitted an Alternative Monitoring Plan to EPA Region 5 for approval. EPA approved the AMP.
- (b)** As required by Paragraph 17 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, by no later than December 31, 2017, the FCCU catalyst regenerator shall be an "affected facility" as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of 40 CFR 60, Subparts A and J, including all monitoring, recordkeeping, reporting and operating requirements, and specified in Section E.3 for PM applicable to the FCCU catalyst regenerator.

D.1.4 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]

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As required by Paragraph 18 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No.129-37428-00003, if prior to the termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, the FCCU becomes subject to 40 CFR Part 60, Subpart Ja, due to a "modification" (as that term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for that regulated pollutant to which a standard applies as a result of the modification.

D.1.45 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart Ja] [326 IAC 2-7-10.5]

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D.1.89 Particulate Control

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In order to ensure compliance with Condition D.1.2, the ~~eyelone~~ **electrostatic precipitator (500-ESP-101)** for particulate control shall be in operation and control emissions from the FCCU regenerator facility at all times the FCCU regenerator is in operation.

D.1.910 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 60, Subpart J]  
[40 CFR 60, Subpart Ja]

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- (c) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) continuous emission monitoring systems for FCCU shall be calibrated, maintained, and operated for measuring **PM**, NO<sub>x</sub>, SO<sub>2</sub>, CO, and O<sub>2</sub>, which meet all applicable performance specifications of 326 IAC 3-5-2.

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D.1.4011 Continuous Opacity Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 60, Subpart Ja]

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- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart Ja.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

D.1.4412 **PM, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO and O<sub>2</sub> Continuous Emissions Monitoring (CEMS) Equipment Downtime**

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- (a) In the event that a breakdown of a **PM, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO and O<sub>2</sub>** continuous emissions monitoring system (CEMS) occurs, a record shall be made of the time and reason of the breakdown and efforts made to correct the problem.
- (b) **Whenever a PM continuous emissions monitoring system (CEMS) is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup PM CEMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary PM CEMS, the Permittee shall comply with the following:**
- (1) **Visible emission notations of ESP (500-ESP-101) stack exhausts shall be performed. A trained employee shall record whether emissions are normal or abnormal.**
  - (2) **For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.**
  - (3) **In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.**
  - (4) **A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.**
  - (5) **If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.**
- (c) **Parametric monitoring shall begin not more than twenty-four (24) hours after the start of the malfunction or down time at least twice per day during normal daylight**



**operations, with at least four (4) hours between each set of readings, until a PM - CEMS is online.**

**D.1.4213** Maintenance of COMS [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]

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**D.1.4314** Record Keeping Requirements [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]

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- (a) The Permittee shall record the output of the continuous monitoring systems ppmvd and shall perform the required record keeping pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.
- (b) In the event that a breakdown of the **PM**, NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, CO or O<sub>2</sub> continuous emission monitoring systems (CEMS) occurs, the Permittee shall maintain records of all CEMS malfunctions, out of control periods, calibration and adjustment activities, and repair or maintenance activities.
- (c) To document the compliance status with opacity Conditions D.1.4011 and D.1.4213, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the limits in Conditions D.1.3, D.1.45, and D.1.56.
  - (1) Data and results from the most recent stack test.
  - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6.
  - (3) The results of all Method 9 visible emission readings taken during any periods of COM downtime.
  - (4) All multiclone and baghouse parametric monitoring readings.
- (d) **To document the compliance status with Condition D.1.11, the Permittee shall maintain records of visible emission notations of the baghouse(s) stack exhausts. The Permittee shall include in its record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).**
- (e) **Pursuant to 326 IAC 7-2-1(c)(3), the source shall maintain records as follows for the Fluidized Catalytic Cracking Unit (FCCU): calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu.**
- (ef) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

**D.1.4415** Reporting Requirements [326 IAC 2-7-5(3)(A)(iii)] [326 IAC 3-5]

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- (d) **Pursuant to 326 IAC 7-2-1(c)(3), the source shall submit reports for the Fluidized Catalytic Cracking Unit (FCCU) of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.**

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description:

- (c) **One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:**

(1)

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

- (2) **Two (2) LPG storage tanks, each with a maximum capacity of 60,000 gallons.**

- (3) **Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.**

- (d) The following storage vessels:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Date	NSPS and NESHAP applicability	Stack ID
1	fixed roof cone tank	404,418	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	075;
2	fixed roof cone tank	404,502	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	076;
3	fixed roof cone tank	404,334	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	077;
4	fixed roof cone tank	118,272	168,000	hydrocarbon with maximum true vapor pressure less than 1.5 psi	1940	40 CFR 63, Subpart CC	018;
4A	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction )	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	134

4B	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	231,000	22,470	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016 (approved for construction )	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	135
***							
174	fixed-roof cone tank/insulated/ heated-cone tank	1,050,000	16,800	Residual Fuel Oil (No.6) or Petroleum Material with a vapor pressure equivalent to or less than 1.5 psi	2007	40-CFR 63, Subpart CC	129
175	fixed-roof cone tank/internal floating roof tank/liquid mounted primary seal	2,310,000	210,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2008	40-CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	130
***							

#### D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-3]

Pursuant to 326 IAC 8-4-3, Tank Nos. **1000-T400, 4A, 4B, 18, and 24, and 175** are subject to the following:

\*\*\*

#### D.2.3 Record Keeping Requirements [326 IAC 8-4-3]

- (a) The Permittee shall comply with the record keeping requirements of 326 IAC 8-4-3. The following records are required for tank Nos. **1000-T400, 4A, 4B, 18, and 24, and 175**:

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### SECTION D.3 FACILITY OPERATION CONDITIONS

#### Emission Unit Description:

- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**
- (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of ~~48.4~~ **19.5** million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in ~~1945~~ **1956 and approved in 2016 for modification**, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. **Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>.** Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.
- \*\*\*
- (l) **One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:**

- (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.

- (2) **Leaks from process equipment, including valves, pumps, and flanges.**

\*\*\*

D.3.4 Standards of Performance for Petroleum Refineries [326 IAC 12] [40 CFR 60, Subpart J] **[40 CFR 60, Subpart Ja]** [326 IAC 2-7-10.5]

- (a) As required by Paragraph 35 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-35410-00003, by no later than the December 31, 2014, the FCCU Raw Oil Pre-Heater (500-H101), Crude heater (200-H2), Unifiner heater (400-H5), Cycle oil heater (H-H2), Naphtha splitter heater (900-H1), Vacuum heater (200-H4), Old Platformer heater (Naphtha Splitter Reboiler 900-H2), Alkylation unit heater (100-H1), Auxiliary crude heater (200-H1), Platformer stabilizer (300-H4), boiler (B1), and the Vacuum heater husky (200-H3) shall be affected facilities as that term is used in 40 CFR 60, Subparts A and J, and shall be subject to and comply with the requirements of Subparts A and J for fuel gas combustion devices, including all monitoring, recordkeeping, reporting and operating requirements.
- (b) **As required by Paragraph 36 of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH and pursuant to SSM No. 129-37428-00003, if prior to termination of the Consent Decree in Civil No. 3:13-CV-00030-RLY-WGH, a heater or boiler becomes subject to 40 CFR 60, Subpart Ja for SO<sub>2</sub> due to a "modification" (as the term is defined in NSPS Subpart A), the modified affected facility shall be subject to and comply with Subpart Ja, in lieu of Subpart J, for SO<sub>2</sub>.**

\*\*\*

D.3.13 Record Keeping Requirements [326 IAC 2-7-5(3)(A)(iii)][326 IAC 3-5]

\*\*\*

- (f) Pursuant to 326 IAC 7-2-1(c)(3), the source shall maintain records as follows for the Fluidized Catalytic Cracking Unit (FCCU): calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu.
- (fg) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.3.14 Reporting Requirements [326 IAC 2-7-5(3)(A)(iii)][326 IAC 3-5]

\*\*\*

- (d) Pursuant to 326 IAC 7-2-1(c)(3), the source shall submit reports for the Fluidized Catalytic Cracking Unit (FCCU) of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

#### SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Unit Description:

Insignificant Activities

- (a) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. ~~[326 IAC 8-4-6]~~

\*\*\*

#### SECTION D.5 FACILITY OPERATION CONDITIONS

Emission Unit Description:

Insignificant Activities

- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: ~~[326 IAC 6-3-2]~~
- (1) Cutting torches.
  - (2) Soldering equipment.
  - (3) Welding equipment.
- (g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute as follows: Abrasive blasting. ~~[326 IAC 6-3-2]~~

\*\*\*

New Source Performance Standards (NSPS) Requirements ~~[326 IAC 2-7-5(1)] [326 IAC 2-8-4 (1)] [326 IAC 2-6-1-5 (a)]~~

#### E.1.1 General Provisions Relating to New Source Performance Standards ~~[326 IAC 12-1] [40 CFR Part 60, Subpart A]~~

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Db.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.1.2 Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12] [40 CFR Part 60, Subpart Db]

~~Pursuant to 40 CFR Part 60, Subpart Db, T~~the Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart Db, which are incorporated by reference as 326 IAC 12 (included as Attachment A to ~~this~~ **the operating** permit), for the emissions unit(s) listed above ~~as specified as follows.~~

\*\*\*

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.2.2 Small Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12] [40 CFR Part 60, Subpart Dc]

~~Pursuant to 40 CFR Part 60, Subpart Dc, T~~the Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart Dc, which are incorporated by reference as 326 IAC 12 (included as Attachment B to ~~this~~ **the operating** permit), for the emissions unit(s) listed above ~~as specified as follows.~~

\*\*\*

SECTION E.3

40 CFR 60, Subpart J

Emission Unit Description:

(b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**

(1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of ~~48.4~~ **19.5** million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in ~~1945~~ **1956 and approved in 2016 for modification**, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. **Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>.** Under

40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.

- (e2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of ~~380~~ **385** barrels fresh feed per hour, installed in 1950 **and approved in 2016 for modification**, controlled by an **electrostatic precipitator (500-ESP-101)** ~~ethylene~~ and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree ~~as of "Date of Entry"~~ **for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.**

\*\*\*

- (l) **One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:**

- (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.

\*\*\*

E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart J.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.3.2 Petroleum Refineries NSPS [326 IAC 12] [40 CFR Part 60, Subpart J]

~~Pursuant to 40 CFR Part 60, Subpart J, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart J, which are incorporated by reference as 326 IAC 12 (included as Attachment C to this the operating permit), for the emissions unit(s) listed above as specified as follows.~~

\*\*\*

SECTION E.4

40 CFR 60, Subpart Ja

Emission Unit Description:

- (e) One (1) Main Refinery Flare, identified as ~~RCD-1~~ **700-V101** with a maximum heat input rate of 371 MMBtu/hr of refinery fuel gas/process gas (with capacity for a supplementary pilot fuel heat input rate of 3.0 MMBtu/hr), installed in 1945 and replaced in 2006 and exhausting to stack 118. Under 40 CFR 60, Subpart Ja, the Main Refinery Flare is considered an affected facility by the Consent Decree as of June 3, 2013 or the earliest date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja.
- (ep) One (1) natural gas or refinery gas fired boiler, approved in 2014 for construction, identified as boiler B5, with a maximum heat input of 118.14 MMBtu/hr, equipped with low NOx burners, and exhausting to stack 132. Under 40 CFR 60, Subpart Db, the boiler B5 is considered an affected facility. Under 40 CFR 60, Subpart Ja, the boiler B5 is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the boiler B5 is considered an affected facility.
- (jjv) One (1) Hydrotreating Unit Reactor charge heater, identified as 210-H-100, with a maximum heat input rating of 30 MMBtu per hour, combusting refinery fuel gas as a primary fuel and natural gas as a back up fuel, and exhausting through one (1) stack identified as 122, constructed in 2005 and approved in 2014 for modification.  
  
Under 40 CFR 63, Subpart DDDDD and 40 CFR 60, Subpart Ja, the Hydrotreating Unit Reactor charge heater is considered an affected facility.
- (Hx) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.
- (aa) One (1) Low Sulfur Gasoline (LSG) Unit consisting of the following equipment:
  - (1) LSG Reactor Charge Heater, identified as 810-H101, approved for **in 2008 for construction in 2008 and approved in 2016 for modification**, with a maximum capacity of 5.985 **6.3** MMBtu/hr, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Ja.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:



Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.4.2 Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007 NSPS [326 IAC 12] [40 CFR Part 60, Subpart Ja]

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Pursuant to 40 CFR Part 60, Subpart Ja, the Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart Ja, which are incorporated by reference as 326 IAC 12 (included as Attachment D to this **the operating** permit), for the emissions unit(s) listed above as specified as follows.

- (1) 40 CFR 60.100a
- (2) 40 CFR 60.101a
- (3) 40 CFR 60.102a (a), **(b), (c)(1)**, (g), (f)(2)
- (4) 40 CFR 60.103a
- (5) 40 CFR 60.104a
- (6) 40 CFR 60.105a (a), (b)(1)(i), (d), (f), (g), (h), (i)**
- ~~(67)~~ 40 CFR 60.106a
- ~~(78)~~ 40 CFR 60.107a
- ~~(89)~~ 40 CFR 60.108a
- ~~(910)~~ 40 CFR 60.109a
- ~~(1011)~~ Table 1

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E.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- 
- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart K.
  - (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

Pursuant to 40 CFR Part 60, Subpart K, ~~T~~**the** Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart K, which are incorporated by reference as 326 IAC 12 (included as Attachment E to ~~this~~ **the operating** permit), for the emissions unit(s) listed above as specified as follows.

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## 40 CFR 60, Subpart Kb

(c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:

Tank ID	Tank Description	Max. Capacity (gallons)	Max. Withdrawal Rate (gal/hr)	Material Stored	Construction Approval Date	NSPS and NESHAP applicability	Stack ID
1000-T400	internal floating roof, with primary mechanical shoe seal and rim-mounted secondary seal tank	840,000	336,000	hydrocarbon with maximum true vapor pressure greater than 1.5 psi	2016	40 CFR Part 60, Subpart Kb and 40 CFR 63, Subpart CC	136

[illegible]

E.6.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.6.2 VOC Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 NSPS [326 IAC 12] [40 CFR Part 60, Subpart Kb]

~~Pursuant to 40 CFR Part 60, Subpart Kb~~ The Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart Kb, which are incorporated by reference as 326 IAC 12 (included as Attachment F to ~~this~~ **the operating permit**), for the emissions unit(s) listed above ~~as specified as follows.~~

- (1) 40 CFR 60.110b (a), (b), (d), (e)
- (2) 40 CFR 60.111b
- (3) 40 CFR 60.112b (a)(1), **(a)(4), (b)**
- (4) 40 CFR 60.113b ~~(a), (b)(1-4)~~
- (5) 40 CFR 60.114b
- (6) 40 CFR 60.115b ~~(a), (b)~~
- (7) 40 CFR 60.116b ~~(a), (b), (c), (d)~~
- (8) 40 CFR 60.117b

SECTION E.7

40 CFR 60, Subpart GGG

Emission Unit Description:

The following equipment in VOC service.

- (u) Process units made up of vessels, piping, exchangers, identified as PENEX. Under 40 CFR 60, Subpart GGG, each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector is considered an affected source at a petroleum refinery.

Insignificant Activities

- (h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
  - (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
  - (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
  - (5) For nitrogen oxides (NOx), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (6) For PM10 or direct PM2.5, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.
- (A) Pipeline Valves - Gas, identified as 090. ~~[40 CFR 60, Subpart GGG]~~
  - (B) Pipeline Valves - Light Liquid, identified as 091. ~~[40 CFR 60, Subpart GGG]~~
  - (C) Pipeline Valves - Heavy Liquid, identified as 092. ~~[40 CFR 60, Subpart GGG]~~
  - (D) Pipeline Valves - Hydrogen, identified as 093. ~~[40 CFR 60, Subpart GGG]~~
  - (E) Open Ended Valves, identified as 094. ~~[40 CFR 60, Subpart GGG]~~
  - (F) Flanges, identified as 095. ~~[40 CFR 60, Subpart GGG]~~
  - (G) Pump Seals Light Liquid, identified as 096. ~~[40 CFR 60, Subpart GGG]~~
  - (H) Pump Seals Heavy Liquid, identified as 097. ~~[40 CFR 60, Subpart GGG]~~
  - (I) Compressor Seals - Gas, identified as 098. ~~[40 CFR 60, Subpart GGG]~~
  - (J) Compressor Seals - Heavy Liquid, identified as 099. ~~[40 CFR 60, Subpart GGG]~~
  - (K) Vessel Relief Valves, identified as 101. ~~[40 CFR 60, Subpart GGG]~~
  - (L) Fugitive emissions from the Hydrotreater unit, Amine Unit, Sulfur Recovery Unit, Tail Gas Treatment Unit consisting of: ~~[40 CFR 60, Subpart GGG]~~ ~~[40 CFR 63, Subpart CC]~~
- (1) pipeline Valves - Gas, identified as 090;
  - (2) pipeline Valves - Light Liquid, identified as 091;
  - (3) pipeline Valves - Heavy Liquid, identified as 092;
  - (4) pipeline Valves - Hydrogen, identified as 093;
  - (5) open Ended Valves, identified as 094;
  - (6) Miscellaneous (Sampling, Blowing, Purging, etc.), identified as 073;
  - (7) flanges, identified as 095;
  - (8) pump Seals Light Liquid, identified as 096;
  - (9) pump Seals Heavy Liquid, identified as 097;
  - (10) compressor Seals - Gas, identified as 098;
  - (11) compressor Seals - Heavy Liquid, identified as 099;
  - (12) drains, identified as 100; and
  - (13) vessel Relief Valves, identified as 101.

**Under 40 CFR 60, Subpart GGG, each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector is considered an affected source at a petroleum refinery.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

##### E.7.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart GGG.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.7.2 Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006 NSPS [326 IAC 12] [40 CFR Part 60, Subpart GGG]

~~Pursuant to 40 CFR Part 60, Subpart GGG, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart GGG, which are incorporated by reference as 326 IAC 12 (included as Attachment G to this the operating permit), for the emissions unit(s) listed above as specified as follows.~~

- (1) 40 CFR 60.590
- (2) 40 CFR 60.591
- (3) 40 CFR 60.592
- (4) 40 CFR 60.593

E.7.3 Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 [326 IAC 12-1] [40 CFR 60, Subpart VV] [40 CFR 60, Subpart GGG]

~~Pursuant to 40 CFR Part 60, Subpart GGG, the Permittee shall comply with the following applicable provisions of 40 CFR Part 60, Subpart VV, which are incorporated by reference as 326 IAC 12 (included as Attachment H to this the operating permit), as follows.~~

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SECTION E.8

40 CFR 60, Subpart GGGa

Emission Unit Description:

Each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service constructed, reconstructed, or modified after November 7, 2006.

- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**

- (1) **One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 19.5 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1956 and approved in 2016 for modification, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>.**

**Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.**

- (2) One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.**
- (3) Leaks from process equipment, including pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation and heat exchange systems.**
- (c) One (1) Sats Gas Unit, identified as 4000, approved in 2016 for construction, with emissions uncontrolled. The Sats Gas unit provides steam stripping, propane and butane separation of off-gases from other refinery units. The facility includes the following emission sources:**
  - (3) Leaks from process equipment, including one (1) compressor, valves, pumps, and flanges.**
- (I) One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:**
  - (2) Leaks from process equipment, including valves, pumps, and flanges.**

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**E.8.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart GGGa.**
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:**

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.8.2 Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 NSPS [326 IAC 12] [40 CFR Part 60, Subpart GGGa]

Pursuant to 40 CFR Part 60, Subpart GGGa, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart GGGa, which are incorporated by reference as 326 IAC 12 (included as Attachment I to this the operating permit), for the emissions unit(s) listed above as specified as follows.

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E.8.3 Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 [326 IAC 12-1] [40 CFR 60, Subpart VVa][40 CFR 60, Subpart GGGa]

Pursuant to 40 CFR Part 60, Subpart GGGa, the Permittee shall comply with the following applicable provisions of 40 CFR Part 60, Subpart VVa, which are incorporated by reference as 326 IAC 12 (included as Attachment J to this the operating permit), as follows.

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SECTION E.9

40 CFR 60, subpart QQQ

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(h) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

- (1) For lead or lead compounds measured as elemental lead, the exemption level is six-tenths (0.6) ton per year or three and twenty-nine hundredths (3.29) pounds per day.
  - (2) For carbon monoxide (CO), the exemption limit is twenty-five (25) pounds per day.
  - (3) For sulfur dioxide, the exemption level is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (4) For VOC, the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.
  - (5) For nitrogen oxides (NOx), the exemption limit is five (5) pounds per hour or twenty-five (25) pounds per day.
  - (6) For PM10 or direct PM2.5, the exemption level is either five (5) pounds per hour or twenty-five (25) pounds per day.
- (M) One (1) Miscellaneous operation (Sampling, Blowing, Purging, etc.), identified as 073. [40 CFR 60, Subpart QQQ]
- (N) Drains, identified as 100. [40 CFR 60, Subpart QQQ]

**Under 40 CFR 60, Subpart QQQ, new and existing drains are considered affected facilities at a petroleum refinery.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)] [~~326 IAC 2-8-4 (1)~~] [326 IAC 2-6-1-5 (a)]

E.9.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart QQQ.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.9.2 VOC Emissions from Petroleum Refinery Wastewater Systems NSPS [326 IAC 12] [40 CFR Part 60, Subpart QQQ]

Pursuant to 40 CFR Part 60, Subpart QQQ, the Permittee shall comply with the **following** provisions of 40 CFR Part 60, Subpart QQQ, which are incorporated by reference as 326 IAC 12 (included as Attachment K to ~~this~~ **the operating** permit), for the emissions unit(s) listed above as **specified as follows**.

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SECTION E.10

40 CFR 60, Subpart IIII

Emission Unit Description:

Insignificant Activities

- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
- (f) Stationary fire pump engines.
  - (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). ~~[40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**



(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)] ~~[326 IAC 2-8-4 (1)] [326 IAC 2-6.1-5 (a)]~~

E.10.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emissions unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

E.10.2 Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12] [40 CFR Part 60, Subpart IIII]

~~Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the following~~  
provisions of 40 CFR Part 60, Subpart IIII, which are incorporated by reference as 326 IAC 12  
(included as Attachment L to ~~this~~ **the operating permit**), for the emissions unit(s) listed above ~~as~~  
~~specified as follows.~~

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~~Emission Limitations and Standards [326 IAC 2-7-5(1)]~~

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**  
**[326 IAC 2-7-5(1)]** ~~[326 IAC 2-8-4 (1)] [326 IAC 2-6.1-5 (a)]~~

F.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 61 [326 IAC 14-1] [40 CFR Part 61, Subpart A]

(a) Pursuant to 40 CFR 61.01, the Permittee shall comply with the applicable provisions of 40 CFR Part 61, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 14-1, for the emission unit(s) listed above, **except as otherwise** specified in 40 CFR Part 61, Subpart ~~FF~~, ~~in accordance with the schedule in 40 CFR 61, Subpart FF.~~

(b) Pursuant to 40 CFR 61.04, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue

MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

F.1.2 Benzene Waste Operations NESHAP [40 CFR Part 61, Subpart FF]

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~~Pursuant to 40 CFR Part 61, Subpart FF, T~~the Permittee shall comply with the **following** provisions of 40 CFR Part 61, Subpart FF (included as Attachment M to this permit), for the emissions unit(s) listed above, ~~as specified as follows.~~

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G.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

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(a) Pursuant to 40 CFR 63.1, ~~Subpart R Table 1,~~ the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-4, for the emissions unit(s) listed above, **except as otherwise** specified in 40 CFR Part 63, Subpart R, ~~in accordance with the schedule in 40 CFR Part 63, Subpart R.~~

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

G.1.2 Gasoline Distribution Facilities NESHAP [326 IAC 20-10] [40 CFR 63, Subpart R]

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~~Pursuant to 40 CFR Part 63, Subpart R, T~~the Permittee shall comply with the **following** provisions of 40 CFR Part 63, Subpart R, which are incorporated by reference as 326 IAC 20-10 (included as Attachment N to ~~this~~ **the operating** permit), for the emissions unit(s) listed above, ~~as specified as follows.~~

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G.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

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(a) Pursuant to 40 CFR 63.6421, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-4, for the emissions unit(s) listed above, **except as otherwise** specified in 40 CFR Part 63, Subpart CC, ~~in accordance with the schedule in 40 CFR Part 63, Subpart CC.~~

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

G.2.2 Petroleum Refineries NESHAP [40 CFR Part 63, Subpart CC] [326 IAC 20-16]

Pursuant to 40 CFR Part 63, Subpart CC, the Permittee shall comply with the **following** provisions of 40 CFR Part 63, Subpart CC, which are incorporated by reference as 326 IAC 20-16 (included as Attachment O to ~~this~~ **the operating** permit), for the emissions unit(s) listed above, as specified as follows.

- (1) 40 CFR 63.640
- (2) 40 CFR 63.641
- (3) 40 CFR 63.642
- (4) 40 CFR 63.643
- (5) 40 CFR 63.644
- (6) 40 CFR 63.645
- (7) 40 CFR 63.646
- (8) 40 CFR 63.647
- (9) 40 CFR 63.648
- (10) 40 CFR 63.649
- (11) 40 CFR 63.650
- (12) 40 CFR 63.651
- (13) 40 CFR 63.652
- (14) 40 CFR 63.653
- (15) 40 CFR 63.654
- (16) 40 CFR 63.655 (d), (e), (f), (g), (h), (i)(1)(iv)
- (17) 40 CFR 63.656

G.2.3 Standard of Performance for Storage Vessels for Bulk Gasoline Terminals [326 IAC 12-1] [40 CFR 60, Subpart XX][326 IAC 20-16][40 CFR 63, Subpart CC]

Pursuant to 40 CFR Part 63, Subpart CC, the Permittee shall comply with the **following** applicable provisions of 40 CFR Part 60, Subpart XX, which are incorporated by reference as 326 IAC 12 (included as Attachment P to ~~this~~ **the operating** permit), as follows.

\*\*\*

SECTION G.3

40 CFR 63, Subpart UUU

Emission Unit Description:

- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**

~~One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of 18.1 million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in 1945 and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.~~

- (2) **One (1) FCCU regenerator, identified as 500V-5 with an average throughput rate of 385 barrels fresh feed per hour, installed in 1950 and approved in 2016 for**

**modification, controlled by an electrostatic precipitator (500-ESP-101) and exhausting to stack 10. Under 40 CFR 63, Subpart UUU, process vents on the FCCU are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart J, the 500V-5 is considered an affected facility by the Consent Decree for particulate matter no later than December 31, 2017 and an affected facility under 40 CFR 60, Subpart Ja for NO<sub>x</sub>, SO<sub>2</sub>, and CO.**

\*\*\*

G.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.1577, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-4, for the emissions unit(s) listed above, **except as otherwise specified in 40 CFR Part 63, Subpart UUU, in accordance with the schedule in 40 CFR Part 63, Subpart UUU.**
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

~~United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch – Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590~~

G.3.2 Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units NESHAP [40 CFR Part 63, Subpart UUU] [326 IAC 20-50]

~~Pursuant to 40 CFR Part 63, Subpart UUU, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart UUU, which are incorporated by reference as 326 IAC 20-50 (included as Attachment Q to this the operating permit), for the emissions unit(s) listed above, as specified as follows.~~

- (1) 40 CFR 63.1560  
(2) 40 CFR 63.1561  
(3) 40 CFR 63.1562  
(4) 40 CFR 63.1563 (b), (c), (e)

\*\*\*

SECTION G.4

40 CFR 63, Subpart ZZZZ

Emission Unit Description:

Insignificant Activities

- (e) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
- (1) One (1) diesel fired emergency generator, installed in 1967, identified as 700-P31 Golf Course pond pump, with a maximum heat input of 130 hp (97 KW). ~~40 CFR 63, Subpart ZZZZ] Under 40 CFR 63, Subpart ZZZZ this is an affected unit.~~

- (2) One (1) diesel fired emergency generator, installed in 1984, identified as 1000-P33B, with a maximum heat input of 240 hp (180 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (3) One (1) diesel fired emergency generator, installed in 2002, identified as Main Office Generator, with a maximum heat input of 50 hp (37 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (4) One (1) diesel fired emergency generator, installed in 2006, identified as 700-C8 Air Compressor, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (5) One (1) diesel fired emergency generator, installed in 2006, identified as 700-G2 Boilerhouse, with a maximum heat input of 393 hp (293 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (6) One (1) diesel fired emergency generator, approved in 2014 for construction, identified as GenB5, with a maximum heat input of 720 hp (500 KW). ~~[40 CFR 60, Subpart IIII]~~ ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (7) One (1) diesel fired emergency generator, installed in 2014, identified as Ref-G4 South Control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII]~~ ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (8) One (1) diesel fired emergency generator, installed in 2014, identified as RefG3 North control Room Generator, with a maximum heat input of 200 hp (150 KW). ~~[40 CFR 60, Subpart IIII]~~ ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (9) One (1) diesel fired emergency generator, installed in 2014, identified as 700-G6 flare Gas CEMs Generator, with a maximum heat input of 130 hp (97 KW). ~~[40 CFR 60, Subpart IIII]~~ ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
- (f) Stationary fire pump engines.
- (1) One (1) diesel fired emergency generator, installed in 1992, identified as 700-P32 No. 2 Fire Pond pump, with a maximum heat input of 302 hp (225 KW). ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**
  - (2) One (1) diesel fired emergency generator, installed in 2008, identified as 700-P33 North Pond fire pump, with a maximum heat input of 420 hp (298 KW). ~~[40 CFR 60, Subpart IIII]~~ ~~[40 CFR 63, Subpart ZZZZ]~~ **Under 40 CFR 60, Subpart IIII this is an affected unit. Under 40 CFR 63, Subpart ZZZZ this is an affected unit.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

G.4.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.6651, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-4, for the emission unit(s) listed above, **except** as **otherwise** specified

in 40 CFR Part 63, Subpart ZZZZ, ~~in accordance with the schedule in 40 CFR Part 63, Subpart ZZZZ.~~

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

G.4.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

~~Pursuant to 40 CFR Part 63, Subpart ZZZZ,~~ The Permittee shall comply with the **following** applicable provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 (included as Attachment R to this **the operating** permit), for the emission unit(s) listed above, ~~as specified as follows.~~

\*\*\*

SECTION G.5

40 CFR 63, Subpart DDDDD

Emission Unit Description:

- (b) **One (1) Fluidized Catalytic Cracking Unit (FCCU), constructed in 1950 and approved in 2016 for modification, identified as Unit ID 500, with an average throughput rate of 385 barrels fresh feed per hour. The FCCU includes the following emission sources:**

- (1) One (1) Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, identified as 500-H101 with a maximum heat input rate of ~~48.4~~ **19.5** million British Thermal Units per hour (MMBtu/hr), combusting refinery fuel gas only (no sour water stripper overhead off-gas combustion), installed in ~~1945-1956~~ **and approved in 2016 for modification**, and exhausting to stack 9. Under 40 CFR 60, Subpart J, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility by the Consent Decree as of December 31, 2014. **Under 40 CFR 60, Subpart Ja, the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater, is considered an affected facility for SO<sub>2</sub>.** Under 40 CFR 63, Subpart DDDDD the Fluid Catalytic Cracking Unit (FCCU) Raw Oil Pre-heater is considered an affected facility.

\*\*\*

- ~~(x) One (1) Tail Gas Treatment System and Sulfur Recovery System identified as 124 and consisting of the following: Under 40 CFR 63, Subpart UUU, these facilities and the associated process vents and bypass lines are considered affected sources at a petroleum refinery. Under 40 CFR 60, Subpart Ja, the Tail Gas Treatment System and Sulfur Recovery System, is considered an affected facility by the Consent Decree as of June 3, 2013.~~

- ~~(1) One (1) Claus Unit Startup burner (SRU Burner 520-H-101), identified as 124-1, with a maximum heat input rating of 1.54 MMBtu per hour, combusting natural gas, and exhausting through one (1) stack identified as 124-1, constructed in 2005. Under 40 CFR 60, Subpart J, the Claus Unit Startup burner, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Claus Unit Startup burner is considered an affected facility.~~

- ~~(2) One (1) Tail Gas Treating Unit (TGTU) Incinerator burner (Claus Furnace 520-H-102), identified as 124-2, with a maximum heat input rating of 1.29 MMBtu per hour,~~

~~combusting refinery fuel gas as a primary fuel and natural gas as a backup fuel, and exhausting through one (1) stack identified as 124-2, constructed in 2005. In the event of unscheduled shutdown of the CCR unit, the Sulfur Recovery Unit effluent will be routed directly to the TGTU incinerator. Under 40 CFR 60, Subpart J, the Tail Gas Treating Unit (TGTU) Incinerator burner, is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the Tail Gas Treating Unit (TGTU) Incinerator burner is considered an affected facility.~~

\*\*\*

(l) **One (1) Alkylation Unit, constructed in 1966 and approved in 2016 for modification identified as Unit ID 100. The facility includes the following emission sources:**

- (1) One (1) Alkylation unit heater, identified as 100-H1 with a maximum heat input rate of 13.2 mmBtu/hr, combusting refinery fuel gas, installed in 1966 and exhausting to stack 7. Under 40 CFR 60, Subpart J, the Alkylation unit heater, is considered an affected facility by the Consent Decree as of December 31, 2014. Under 40 CFR 63, Subpart DDDDD the Alkylation unit heater is considered an affected facility.

\*\*\*

- (aa) (1) LSG Reactor Charge Heater, identified as (810-H101), approved ~~for~~ **in 2008 for construction in 2008 and approved in 2016 for modification**, with a maximum capacity of ~~5.985~~ **6.3** MMBtu, combusting refinery fuel gas only, and venting to stack 128. Under 40 CFR Part 60, Subpart Ja, the LSG Reactor Charge Heater is considered an affected facility. Under 40 CFR 63, Subpart DDDDD, the LSG Reactor Charge Heater is considered an affected facility.

\*\*\*

G.5.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.75651, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-4, for the emission unit(s) listed above, **except as otherwise specified** in 40 CFR Part 63, Subpart DDDDD, ~~in accordance with the schedule in 40 CFR Part 63, Subpart DDDDD.~~
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

G.5.2 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

~~Pursuant to 40 CFR Part 63, Subpart DDDDD, the Permittee shall comply with the following applicable provisions of 40 CFR Part 63, Subpart DDDDD, which are incorporated by reference as 326 IAC 20-95 (included as Attachment S to this the operating permit), for the emission unit(s) listed above, as specified as follows.~~

\*\*\*

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865

PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT

Source Name: CountryMark Refining and Logistics, LLC  
Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
Part 70 Permit No.: T129-35008-00003

This form consists of 2 pages

Page 1 of 2

- ☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) **daytime** business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

\*\*\*

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: CountryMark Refining and Logistics, LLC  
Source Address: 1200 Refinery Road, Mount Vernon, Indiana 47620  
Part 70 Permit No.: T129-35008-00003  
Facility: Boiler B5  
Parameter: NOx emissions  
Limit: shall not exceed 31.05 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER:

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
<del>Month 1</del>			



<del>Month 2</del>			
<del>Month 3</del>			

\*\*\*

### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 25, 2016. Additional information was received on August 22, 2016.

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 129-37428-00003. The operation of this proposed modification shall be subject to the conditions of the attached Significant Permit Modification.

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Kristen Willoughby at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-3031 or toll free at 1-800-451-6027, extension 3-3031.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emission Calculations  
PTE Summary**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modificaion No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Uncontrolled Potential to Emit (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs
Loading Rack	NA	NA	NA	NA	NA	NA	NA	NA
FCCU	24.88	20.72	9.77	16.71	14.35	0.24	145.69	30.19
FCCU Raw Oil Pre-heater	0.15	0.59	0.59	2.22	7.77	0.43	6.53	0.15
Storage Tanks	-	-	-	-	-	30.00	-	13.02
700-V101**	3.05	12.21	12.21	5508.02	160.60	135.15	134.90	3.03
100-H1	0.11	0.43	0.43	0.03	5.67	0.31	4.76	0.11
200-H2	1.07	4.28	4.28	16.03	78.75	3.09	47.25	1.06
300-H1, H2, H3	0.57	2.29	2.29	8.60	30.19	1.66	25.36	0.57
Boiler 1	0.50	2.01	2.01	6491.16	26.38	1.45	22.16	0.50
Boiler 4	0.82	3.27	3.27	10598.07	60.31	2.37	36.18	0.81
Boiler 5	1.14	4.56	4.56	17.59	83.92	3.30	50.35	1.13
210-H-100	0.28	1.11	1.11	0.30	18.04	0.80	12.26	0.24
210-H101	0.18	0.74	0.74	0.20	11.99	0.53	8.15	0.16
Units that combust only refinery gas	1.07	4.29	4.29	16.08	56.42	3.10	47.39	1.06
Units that combust only natural gas	0.02	0.08	0.08	0.01	1.10	0.06	0.92	0.02
Units that can combust either refinery or natural gas	0.07	0.26	0.26	846.35	3.44	0.19	2.89	0.06
GenB5	0.06	0.06	0.06	2.18E-03	1.18	0.13	1.04	1.98E-03
Emergency Units	1.21	1.21	1.21	1.12	17.01	1.38	3.67	0.01
Leaks	-	-	-	-	-	4.66E-01	-	negl.
Cooling Towers	8.60	8.60	8.60	-	-	1.29	-	-
<b>Total</b>	<b>43.78</b>	<b>66.70</b>	<b>55.75</b>	<b>23,522.49</b>	<b>577.12</b>	<b>185.95</b>	<b>549.51</b>	<b>52.14</b>
Countrymark Cooperative, LLP	>100	>100	>100	-	-	>100	-	>15
Source Wide Total	>100	>100	>100	>100	>100	>100	>100	>25

\* PM2.5 listed is direct PM2.5

\*\* Uncontrolled VOC emissions from this unit are based on actual emissions.

NA - This data was not needed for rule applicability determination.

**Appendix A: Emission Calculations  
PTE Summary**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modificaion No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Potential to Emit after Control (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs
Loading Rack	7.34E-04	2.94E-03	2.94E-03	0.72	0.04	0.02	0.03	7.29E-04
FCCU	24.88	20.72	9.77	16.71	14.35	0.24	145.69	30.19
FCCU Raw Oil Pre-heater	0.15	0.59	0.59	2.22	7.77	0.43	6.53	0.15
Storage Tanks	-	-	-	-	-	30.00	-	13.02
700-V101	3.05	12.21	12.21	5508.02	160.60	8.83	134.90	3.03E+00
100-H1	0.11	0.43	0.43	0.03	5.67	0.31	4.76	1.07E-01
200-H2	1.07	4.28	4.28	16.03	78.75	3.09	47.25	1.06
300-H1, H2, H3	0.57	2.29	2.29	8.60	30.19	1.66	25.36	5.70E-01
Boiler 1	0.50	2.01	2.01	6491.16	26.38	1.45	22.16	0.50
Boiler 4	0.82	3.27	3.27	10598.07	60.31	2.37	36.18	0.81
Boiler 5	1.14	4.56	4.56	17.59	83.92	3.30	50.35	1.13
210-H-100	0.28	1.11	1.11	0.30	18.04	0.80	12.26	0.24
210-H101	0.18	0.74	0.74	0.20	11.99	0.53	8.15	0.16
Units that combust only refinery gas	1.07	4.29	4.29	16.08	56.42	3.10	47.39	1.06
Units that combust only natural gas	0.02	0.08	0.08	0.01	1.10	0.06	0.92	0.02
Units that can combust either refinery or natural gas	0.07	0.26	0.26	846.35	3.44	0.19	2.89	0.06
GenB5	0.06	0.06	0.06	2.18E-03	1.18	0.13	1.04	1.98E-03
Emergency Units	1.21	1.21	1.21	1.12	17.01	1.38	3.67	0.01
Leaks	-	-	-	-	-	0.47	-	negl.
Cooling Towers	8.60	8.60	8.60	-	-	1.29	-	-
<b>Total</b>	<b>43.78</b>	<b>66.70</b>	<b>55.75</b>	<b>23523.20</b>	<b>577.15</b>	<b>59.65</b>	<b>549.54</b>	<b>52.14</b>
Countrymark Cooperative, LLP	<100	<100	<100	-	-	>100	-	>15
Source Wide Total	<100	<100	<100	>100	>100	>100	>100	>25

\* PM2.5 listed is direct PM2.5

NA - This data was not needed for rule applicability determination.

**Appendix A: Emission Calculations  
PTE Summary**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modificaion No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Potential to Emit after Issuance (tons/yr)								
Emission Unit	PM	PM10	PM2.5 *	SO <sub>2</sub>	NOx	VOC	CO	Total HAPs
Loading Rack	NA	NA	NA	NA	NA	NA	NA	NA
FCCU	24.88	44.73	19.70	16.71	14.35	0.24	145.69	30.19
FCCU Raw Oil Pre-heater	0.15	0.59	0.59	2.22	7.77	0.43	6.53	0.15
Storage Tanks	-	-	-	-	-	30.00	-	13.02
700-V101	3.05	12.21	12.21	5508.02	160.60	8.83	134.90	3.03
100-H1	0.11	0.43	0.43	0.03	5.67	0.31	4.76	0.11
200-H2	1.07	4.28	4.28	16.03	≥ 68	3.09	47.25	1.06
300-H1, H2, H3	0.57	2.29	2.29	8.60		1.66	25.36	0.57
Boiler 1	0.50	2.01	2.01	6491.16		1.45	22.16	0.50
Boiler 4	0.82	3.27	3.27	10598.07		2.37	36.18	0.81
Boiler 5	1.14	4.56	4.56	17.59		3.30	50.35	1.13
210-H-100	0.28	1.11	1.11	0.30	18.04	0.80	12.26	0.24
210-H101	0.18	0.74	0.74	0.20	11.99	0.53	8.15	0.16
Units that combust only refinery gas	1.07	4.29	4.29	16.08	56.42	3.10	47.39	1.06
Units that combust only natural gas	0.02	0.08	0.08	0.01	1.10	0.06	0.92	0.02
Units that can combust either refinery or natural gas	0.07	0.26	0.26	846.35	3.44	0.19	2.89	0.06
GenB5	0.06	0.06	0.06	2.18E-03	1.18	0.13	1.04	1.98E-03
Emergency Units	1.21	1.21	1.21	1.12	17.01	1.38	3.67	0.01
Leaks	-	-	-	-	-	0.47	-	negl.
Cooling Towers	8.60	8.60	8.60	-	-	1.29	-	-
<b>Total</b>	<b>43.78</b>	<b>90.71</b>	<b>65.67</b>	<b>23503.56</b>	<b>374.49</b>	<b>59.63</b>	<b>397.29</b>	<b>52.14</b>
Countrymark Cooperative, LLP	>100	>100	>100	-	-	>100	-	>15
Source Wide Total	>100	>100	>100	>100	>100	>100	>100	>25

\* PM2.5 listed is direct PM2.5

Note: The shaded cells indicate where limits are included.

NA - This data was not needed for rule applicability determination.

The above tables do not reflect the total source wide emissions.

## Appendix A: Emission Calculations

## Sulfur Recovery Unit &amp; Loading Rack Emissions

Company Name: CountyMark Refining and Logistics, LLC

Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

Reviewer: Kristen Willoughby

## Sulfur Recovery Unit emissions

The primary function of the Distillate Hydrotreating (DHT) Unit is to remove sulfur from the hydrocarbon materials charged to the unit. There are no emission points for the sulfur within the DHT Unit. All sulfur containing gases are routed to the Amine Unit. The Amine Unit separates the sulfur compounds from the gases and the sulfur is recovered in the Sulfur Recovery Unit. Tail gases containing small amounts of sulfur compounds are further treated in the Tail Gas Unit and then converted to sulfur dioxide at the TGTU Incinerator. Overall recovery of sulfur compounds in a Claus Unit followed by incineration is 99.9% per the NESHAP Subpart UUU Background Information Document. Actual monitored SO<sub>2</sub> emission at the incinerator indicate the Countrymark SRU/TGTU train exceed 99.9% sulfur recovery.

sulfur recovered by the SRU as a result of the increase in charge to the Distillate Hydrotreater Unit (ton/yr)	2,424.27
SO <sub>2</sub> emission at the SRU incinerator stack assuming 99.9% sulfur recovery rate. (ton/yr)	0.72

## Loading Rack

Distillate Loading Rack controlled with a vapor combustor	Controlled
	VOC, Loading Rack Emissions**
	ton/yr 0.01378

Throughput, gallons	
Distillate loading rack throughput	70,719,335

\*AP-42, Section 5.2, Table 5.2-4

\*\* Future emissions estimated using future throughput and average of 2012/2013 working loss emission factors.

Overall control efficiency, 98% for vapor combustor, 99.2% capture efficiency. 98% x 99.2% = 97.22% AP-42, Page 5.2-6

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
0.09	1020	0.8

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	7.34E-04	2.94E-03	2.94E-03	2.32E-04	0.04	2.13E-03	0.03

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

## Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

## HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	8.116E-07	4.638E-07	2.899E-05	6.956E-04	1.314E-06	7.272E-04

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.932E-07	4.251E-07	5.411E-07	1.469E-07	8.116E-07	2.118E-06
	Total HAPs					7.293E-04
	Worst HAP					2.100E-03

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations  
Process Emissions  
FCC Regenerator  
Company Name: Countrymark Refining and Logistics, LLC  
Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620  
Significant Source Modification No.: 129-37428-00003  
Significant Permit Modification No.: 129-37429-00003  
Reviewer: Kristen Willoughby

	Barrels per Day (BPD) Feed Rate	Barrels per calendar year
Potential Rate	9,250	3,376,250
	DSCFM	DSCFM @ 0% O2
Projected Potential Regenerator Flue gas flow rate	17,490	16,569

Design flow rate after the project at 9,250 BPD charge. Design O<sub>2</sub> % at this feed rate - 1.1%

Potential Limited Controlled Emission in tons/yr	Pollutant					
	PM	PM10	direct PM2.5	SO2	NOx	VOC
Emission Factor, lb/bbl (bbl of feed)				0.0099	0.0085	0.000144
Emission Factor Basis				25 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, Consent Decree 365-day rolling average limit	30 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, Consent Decree 365-day rolling average limit	Stack test derived factor, see below
Emission Calculation Basis	0.04 gridsct @ 0% O <sub>2</sub> , at max. exhaust design flow rate, NSPS Subpart J opting NSPS Subpart Ja grain loading limit	(PM x % PM10) + 0.00122 lb/bbl	(PM x % PM2.5) + 0.00122 lb/bbl			500 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, NESHAIP Subpart UUU and Consent Decree limit
Potential Limited Controlled Emission in tons/yr after project, at maximum feed rate at 8,760 hr/yr	24.88	20.72	9.77	16.71	14.35	0.24

Uncontrolled, Unlimited Emission in tons/yr	0.0337	0.0265	0.0117	0.0897	0.0067	0.00014	0.0136
Emission Factor, lb/bbl							
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	Measured concentration without Desox catalyst - 227 ppm, converted to lb/bbl, at max. design flow rate.	Past 24-month CEMS data, converted to lb/bbl, at max. design flow rate	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl, at max. design flow rate
Uncontrolled, Unlimited Emission in tons/yr after project, maximum feed rate at 8,760 hr/yr	56.89	44.73	19.70	151.42	14.35	0.24	145.69

Emission Factor in lb/barrel	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
Potential Emissions in tons/yr after project, unlimited, uncontrolled	75,307.26	2.20	0.44	75,493.71

**Methodology**  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
Particulate - worst case of October 2014 and April 2016 stack test  
PM10 - Worst case size distribution from October 2014 and April 2016 stack tests + condensable PM from April 2016 stack test  
PM 2.5 - Worst case size distribution from October 2014 and April 2016 stack tests + condensable PM from April 2016 stack test  
HAP - EPA OAQPS Emissions Protocol for Petroleum Refineries, April 2015, HCN - April 2016 stack test  
Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart Y emission calculations.  
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
CO2e (tons/yr) = CO2 ton/yr x CO2 GWP (1) + CH4 ton/yr x CH4 GWP (25) + N2O ton/yr x N2O GWP (298).

Stack test result summary - April 2016  
Filterable PM - 0.0196 lb/bbl, 75% PM10, 31% PM2.5  
Condensable PM - 0.00122 lb/bbl (100% PM10 and PM2.5)  
1.228 lb PM/1000 lb coke burned  
  
Stack test result summary - October 2014, representative of before project actual emissions  
Filterable PM - 0.0337 lb/bbl, 25% PM10, 22% PM2.5  
2.52 lb PM/1000 lb coke burned

VOC - October 2005 stack test, 0.144 lb/1000 bbl

**Appendix A: Emission Calculations**  
**Process Emissions**  
**FCC Regenerator**  
**Company Name: Countrymark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

## HAP Emissions

Emissions Estimation Protocol for Petroleum Refineries, EPA, April 2015					ton/yr
Metals	Ratio to Ni - ICR protocol	Calculated emission factor, lb/bbl	Site specific emission factor	Test date for site specific emission factor	Potential Emissions in tons/yr after protect
Antimony	0.065	3.7895E-07	1.58E-08 lb/bbl	October 2014 stack test	6.40E-04
Arsenic	0.010				2.67E-05
Beryllium	0.003	1.749E-08	3.07E-07 lb/bbl	October 2014 stack test	2.95E-05
Cadmium	0.013	7.579E-08			1.28E-04
total chromium	0.250		1.56E-07 lb/bbl	October 2014 stack test	5.18E-04
Lead	0.080				2.63E-04
Cobalt	0.052	3.0316E-07	5.83E-06 lb/bbl	April 2016 stack test	5.12E-04
Manganese	0.130	7.579E-07			1.28E-03
Nickel	1.000		3.72E-08 lb/bbl	October 2014 stack test	9.84E-03
Selenium	0.025				6.28E-05
Vanadium	1.320	7.6956E-06			1.30E-02
Zinc	0.740	4.3142E-06			7.28E-03
<b>Volatile Organic Compounds</b>					
	lb/MMbbl				
Acetaldehyde	20				3.38E-02
Acrolein	1				1.69E-03
Benzene	18				3.04E-02
Bromomethane	2				3.55E-03
1,3-Butadiene	0				5.57E-05
Ethylbenzene	0				4.05E-04
Formaldehyde	260				4.39E-01
Methylene Chloride	7				1.13E-02
Phenol	9				1.47E-02
Toluene	4				5.91E-03
Xylene	3				5.40E-03
<b>Semivolatile and Nonvolatile Organics</b>					
Acenaphthene	3.30E-03				5.57E-06
Acenaphthylene	1.30E-01				2.19E-04
Anthracene	1.00E-01				1.69E-04
Benzo(a)anthracene	5.20E-04				8.78E-07
Benzo(a)pyrene	1.10E-02				1.86E-05
Benzo(b)fluoranthene	3.50E-03				5.91E-06
Benzo(e)pyrene	4.50E-04				7.60E-07
Benzo(g,h,i)perylene	4.60E-03				7.77E-06
Benzo(k)fluoranthene	2.60E-03				4.39E-06
Chrysene	3.30E-03				5.57E-06
Dibenz(a,h)anthracene	4.20E-03				7.09E-06
Fluoranthene	9.30E-02				1.57E-04
Fluorene	3.70E-02				6.25E-05
Indeno(1,2,3-cd)pyrene	4.40E-03				7.43E-06
2-Methylnaphthalene	2.60E-02				4.39E-05
Naphthalene	1.00E+00				1.69E-03
Phenanthrene	2.40E-01				4.05E-04
Pyrene	3.10E-03				5.23E-06
<b>Dioxins and Furans</b>					
Pentachlorodibenzofurans	5.50E-07				9.28E-10
Hexachlorodibenzofuran	1.10E-06				1.86E-09
Heptachlorodibenzo-p-dioxin	9.40E-07				1.59E-09
<b>Inorganics</b>					
Ammonia	1.30E+04		1.36E-04 lb/bbl	April 2016 stack test	2.30E-01
Carbon disulfide	5.60E-01				9.45E-04
Hydrogen chloride	1.80E+03				3.04E+00
Hydrogen cyanide	7.00E+03		1.56E-02 lb/bbl	April 2016 stack test (used for future potential and projected actual)	26.33
Mercury	9.40E-02				1.59E-04
Total					30.19

## Appendix A: Emissions Calculations

## FCCU

MM BTU/HR &lt;100

Company Name: CountyMark Refining and Logistics, LLC  
 Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620  
 Significant Source Modification No.: 129-37428-00003  
 Significant Permit Modification No.: 129-37429-00003  
 Reviewer: Kristen Willoughby

## FCCU Raw Oil Pre-heater (500-H101)

Heat Input Capacity	HHV	Potential Throughput
MMBtu/hr	mmBtu	MMCF/yr
	mmscf	
18.1	1020	155.4

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	28.5 950 x %S	100 **see below	5.5	84
Potential Emission in tons/yr	0.1	0.6	0.6	2.2	7.8	0.4	6.5

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

## Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

## HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.632E-04	9.327E-05	5.829E-03	1.399E-01	2.643E-04	1.463E-01

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	3.886E-05	8.550E-05	1.088E-04	2.953E-05	1.632E-04	4.259E-04
						<b>Total HAPs</b>
						<b>1.467E-01</b>
						<b>Worst HAP</b>
						<b>1.399E-01</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emission Calculations  
Storage Tanks**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Tank	Type of tank	Average working loss VOC emission factor (lb/1000 gal)	Throughput (gallons/yr)	VOC (lb/hr)	VOC (ton/yr)
34	Rundown	3.50E-03	115,867,206	0.05	0.20
35	Rundown	3.50E-03	116,441,010	0.05	0.20
36	Product	2.40E-03	35,601,510	0.01	0.04
37	Product	2.71E-02	54,227,067	0.17	0.73
38	Feed	1.86E-02	101,569,026	0.22	0.94
39	Feed	3.15E-02	54,254,596	0.20	0.85
40	Rundown	2.00E-03	4,995,678	1.14E-03	5.00E-03
42	Feed	2.30E-02	102,219,443	0.27	1.18
43	Feed	7.93E-02	35,889,314	0.32	1.42
46	Product	2.00E-03	113,903,653	0.03	0.11
50	Gasoline Bleeding	1.80E-03	219,752,989	4.52E-02	0.20
52	Product	1.86E-02	104,910,485	0.22	0.98
<b>Total:</b>				<b>1.57</b>	<b>6.87</b>

Tank Number	Product Stored	Total VOC Tons/yr
1000-T400	Gasoline Product	2.75
4A	TVP > 1.5 psia	1.29
4B	TVP > 1.5 psia	1.29
18	Gasoline (RVP 13)	6.98
22B	Residual Fuel Oil No.6	0.59
173	Residual Fuel Oil No.6	0.59
174	Residual Fuel Oil No.6	0.59
175	Gasoline (RVP 13)	5.15
1000 TK 17	Distillate stock/gas oil	2.63
<b>Total</b>		<b>21.9</b>

Note: Storage tank emissions are estimated using USEPA's Tanks 4.09 software program and provided by the source.

Tank Number	Product Stored	VOC Emissions Tons/yr	HAP Emissions (TPY)							Total
			Benzene	Toluene	Ethyl-Benzene	Xylenes	n-Hexane	Trimethylbenzene	2,2,4-trimethylpentane	
1000-T400	Gasoline Product	2.75	4.10E-03	1.98E-02	2.50E-03	1.19E-02	2.45E-02	3.50E-03	1.28E-02	2.81
4A	TVP > 1.5 psia	1.29	1.90E-03	9.30E-03	1.20E-03	5.60E-03	1.15E-02	1.70E-03	6.00E-03	1.32
4B	TVP > 1.5 psia	1.29	1.90E-03	9.30E-03	1.20E-03	5.60E-03	1.15E-02	1.70E-03	6.00E-03	1.32
40	Rundown	5.00E-03	5.00E-05	8.00E-06	-	2.30E-05	1.50E-05	-	-	0.01
50	Gasoline Bleeding	0.20	-	1.00E-03	-	1.00E-05	4.00E-05	-	0.01	0.20
22B	Residual Fuel Oil No.6	0.59	0.02	0.04	1.00E-03	0.02	0.03	-	-	0.68
173	Residual Fuel Oil No.6	0.59	0.02	0.04	1.00E-03	0.02	0.03	-	-	0.68
174	Residual Fuel Oil No.6	0.59	0.02	0.04	1.00E-03	0.02	0.03	-	-	0.68
175	Gasoline (RVP 13)	5.15	0.02	0.03	2.00E-03	0.01	0.04	-	-	5.24
<b>Total</b>		<b>12.45</b>	<b>0.07</b>	<b>0.17</b>	<b>0.01</b>	<b>0.08</b>	<b>0.16</b>	<b>0.01</b>	<b>0.03</b>	<b>12.94</b>

Note: Storage tank emissions are estimated using USEPA's Tanks 4.09 software program and provided by the source.

Note: Emissions were not calculated for all of the storage tanks at this facility.

Tank Number	Product Stored	VOC Emissions Tons/yr	Benzene	Toluene	Vapor Weight Percent *		Cyclohexane	Hexane	Total
	Gasoline	N/A	2.60%	0.70%	Ethyl-Benzene 0.20%	Xylenes 0.20%	0.00%	2.70%	
HAP Emissions (tons/yr)									
22A	Fuel Oil	1.26	0.033	0.009	0.003	0.003	0.000	0.034	0.08
<b>Total</b>		<b>1.26</b>	<b>0.033</b>	<b>0.009</b>	<b>0.003</b>	<b>0.003</b>	<b>0.000</b>	<b>0.034</b>	<b>0.08</b>

Note: Storage tank emissions are estimated using USEPA's Tanks 4.0 software program and provided by the source.

\* The vapor mass fraction was determined using USEPA's Tanks 4.0 software program using the liquid concentrations of HAPs from a Countrymark distillate sample.

HAPs		
Distillate Vapor Speciation	lb/lb	ton/yr
Benzene	0.007	0.018
Ethylbenzene	0.005	0.013
Toluene	0.019	0.050
Xylene	0.019	0.051
Cyclohexane	0.003	0.009
n-Hexane	0.011	0.029
Naphthalene	0.00004	0.000
Biphenyl	0.001	0.002
<b>Total HAPs</b>		<b>0.173</b>

**Appendix A: Emissions Calculations****Main Refinery Flare**

Company Name: CountyMark Refining and Logistics, LLC  
 Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620  
 Significant Source Modification No.: 129-37428-00003  
 Significant Permit Modification No.: 129-37429-00003  
 Reviewer: Kristen Willoughby

Main Refinery Flare, burning process gas, identified as RCD-1, installed in 1945 and replaced in 2006 and exhausting to stack 118

Heat Input Capacity	HHV	Potential Throughput
MMBtu/hr	mmBtu	MMCF/yr
	mmscf	
374.0	1020	3212.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	3429.7	100 **see below	5.5	84
Potential Emission from pilot light only in tons/yr	3.1	12.2	12.2	5508.0	160.6	8.8	134.9
Actual Controlled Emissions tons/yr	-	0.90	0.90	28.41	11.75	2.70	9.89
Actual Uncontrolled Emissions tons/yr	-	0.90	0.90	28.41	11.75	135.15	9.89

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

SO2 from AIRS 3-06-001-06 (950 x % S)

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Actual Controlled Emissions based on 2013 Emissions Inventory.

Actual Uncontrolled Emissions based on 2013 Emissions Inventory and conservatively assuming a 98% VOC control.

**HAPS Calculations**

	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	3.373E-03	1.927E-03	1.205E-01	2.891E+00	5.460E-03	3.022E+00

	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	8.030E-04	1.767E-03	2.248E-03	6.103E-04	3.373E-03	8.801E-03
					<b>Total HAPs</b>	<b>3.031E+00</b>
					<b>Worst HAP</b>	<b>2.891E+00</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Alkylation Unit Heater (100-H1)**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

**1. - Refinery Gas Combustion**

Heat Input Capacity	HHV	Potential Throughput
MMBtu/hr	mmBtu	MMCF/yr
	mmscf	
13.2	1020	113.4

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.1	0.4	0.4	3.40E-02	5.7	0.3	4.8

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.190E-04	6.802E-05	4.251E-03	1.020E-01	1.927E-04	1.067E-01

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.834E-05	6.235E-05	7.936E-05	2.154E-05	1.190E-04	3.106E-04

<b>Total HAPs</b>	<b>1.070E-01</b>
<b>Worst HAP</b>	<b>1.020E-01</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Refinery Gas Combustion Only - 200-H2**  
**MM BTU/HR <100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
131.0	1020	1125.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2 28.5 950 x %S	NOx 140 **see below	VOC 5.5	CO 84
Potential Emission in tons/yr	1.1	4.3	4.3	16.0	78.8	3.1	47.3
Actual Emissions tons/yr	-	2.69	2.69	427.19	17.36	1.95	29.74

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

**Methodology**

Actual Emissions based on 2013 Emissions Inventory.

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Actual Emissions based on 2013 Emissions Inventory.

**HAPS Calculations**

HAPs - Organics						
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	1.181E-03	6.750E-04	4.219E-02	1.013E+00	1.913E-03	<b>1.059E+00</b>

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	2.813E-04	6.188E-04	7.875E-04	2.138E-04	1.181E-03	<b>3.083E-03</b>
<b>Total HAPs</b>						<b>1.062E+00</b>
<b>Worst HAP</b>						<b>1.013E+00</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations****CCR Platform Heater (300-H1, H2, H3)****MM BTU/HR <100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
70.30	1020	603.75

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2 28.5 950 x %S	NOx 100 **see below	VOC 5.5	CO 84
Emission Factor in lb/MMCF	1.9	7.6	7.6				
Potential Emission in tons/yr	0.6	2.3	2.3	8.6	30.2	1.7	25.4

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

	HAPs - Organics					
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Emission Factor in lb/MMcf						
Potential Emission in tons/yr	6.339E-04	3.623E-04	2.264E-02	5.434E-01	1.026E-03	5.680E-01

		HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	1.509E-04	3.321E-04	4.226E-04	1.147E-04	6.339E-04	1.654E-03
Methodology is the same as above.					Total HAPs	5.697E-01
					Worst HAP	5.434E-01

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Boiler 1 - Refinery Gas Combustion Only**  
**MMBTU/HR >100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity	HHV	Potential Throughput
MMBtu/hr	mmBtu	MMCF/yr
	mmscf	
52.0	863.25	527.7

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Limited Emission Factor in lb/MMBtu	1.9	7.6	7.6	28.5	100.0 0.20	5.5	84.0
				**950 x %S	***see below		
Potential Emission in tons/yr	0.50	2.01	2.01	6491.16	26.38	1.45	22.16
Limited Emissions in tons/yr					26.17		

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\* Emission Factor for SOx is based on a 0.03 %S.

\*\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

\*\*\*Limited emissions are based on consent decree limits.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	5.54E-04	3.17E-04	1.98E-02	4.75E-01	8.97E-04	0.50

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.32E-04	2.90E-04	3.69E-04	1.00E-04	5.54E-04	1.45E-03
					<b>Total HAPs</b>	0.50
					<b>Worst HAP</b>	0.47

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Boiler 4 - Natural Gas Combustion Only**

**MM BTU/HR <100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
84.9	1020	729.1

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Limited Emission Factor in lb/MMBtu	1.9	7.6	7.6	0.6	100 0.045 **see below	5.5	84
Potential Emission in tons/yr	0.7	2.8	2.8	0.2	36.5	2.0	30.6
Limited Emissions in tons/yr					16.7		

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

\*\*\*Limited emissions are based on consent decree limits.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	7.656E-04	4.375E-04	2.734E-02	6.562E-01	1.240E-03	6.860E-01

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	1.823E-04	4.010E-04	5.104E-04	1.385E-04	7.656E-04	1.998E-03
						Total HAPs 6.880E-01
						Worst HAP 6.562E-01

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Boiler 4 - Refinery Gas Combustion Only**  
**MMBTU/HR >100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBTu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
84.9	863.25	861.5

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	28.5	140.0	5.5	84.0
Limited Emission Factor in lb/MMBTu				**950 x %S	0.045 ***see below		
Potential Emission in tons/yr	0.82	3.27	3.27	10598.07	60.31	2.37	36.18
Limited Emissions in tons/yr					16.73		

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\* Emission Factor for SOx is based on a 0.03 %S.

\*\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

\*\*\*Limited emissions are based on consent decree limits.

**Methodology**

All emission factors are based on normal firing.

MMBTu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBTu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

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Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.05E-04	5.17E-04	3.23E-02	7.75E-01	1.46E-03	0.81

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.15E-04	4.74E-04	6.03E-04	1.64E-04	9.05E-04	2.36E-03
					<b>Total HAPs</b>	0.81
					<b>Worst HAP</b>	0.78

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emission Calculations**  
**Boiler 5 - Natural Gas Combustion Only**  
**MMBTU/HR >100**  
**Utility Boiler**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
118.1	1020	1014.6

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Limited Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	140.0 61.2 **see below	5.5	84.0
Potential Emission in tons/yr	0.96	3.86	3.86	0.30	71.02	2.79	42.61
Limited Emissions in tons/yr					31.05		

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

\*\*Low NOx Burner, selected limitation of 0.06 lb/MMBtu, operation 8,760 hour/yr

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.07E-03	6.09E-04	3.80E-02	9.13E-01	1.72E-03	0.95

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.54E-04	5.58E-04	7.10E-04	1.93E-04	1.07E-03	2.78E-03

**Total HAPs** 0.96

**Worst HAP** 0.91

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Boiler 5 - Refinery Gas Combustion Only**  
**MMBTU/HR >100**  
**Utility Boiler**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
118.1	863.25	1198.8

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Limited Emission Factor in lb/MMCF	1.9	7.6	7.6	0.034	140.0 51.8	5.5	84.0
				**lb/mmbtu	***see below		
Potential Emission in tons/yr	1.14	4.56	4.56	17.59	83.92	3.30	50.35
Limited Emissions in tons/yr					31.05		

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\* Emission Factor for SOx is based on approximately 162 ppm H2S in the fuel gas as a worse case (NSPS Subpart Ja H2S 3-hour average limit)

\*\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

\*\*\*Low NOx Burner, selected limitation of 0.06 lb/MMBtu, operation 8,760 hour/yr

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	1.26E-03	7.19E-04	4.50E-02	1.08E+00	2.04E-03	1.13

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	3.00E-04	6.59E-04	8.39E-04	2.28E-04	1.26E-03	3.28E-03
					<b>Total HAPs</b>	1.13
					<b>Worst HAP</b>	1.08

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations****Refinery Gas Combustion Only****210-H-100****Company Name: CountyMark Refining and Logistics, LLC****Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620****Significant Source Modification No.: 129-37428-00003****Significant Permit Modificaiton No.: 129-37429-00003****Reviewer: Kristen Willoughby**

Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
30.0	900	292.0

	Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	direct PM2.5* 7.6	SO2 2.0	NOx 0.04 lb/MMBtu	VOC 5.5	CO 84
Potential Emission in tons/yr	0.28	1.11	1.11	0.30	5.26	0.80	12.26

**Methodology**

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations****Natural Gas Combustion Only****210-H-100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
30.0	1020	257.6

	Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	direct PM2.5* 7.6	SO2 0.6	NOx 140.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.24	0.98	0.98	0.08	18.04	0.71	10.82

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

\*\*Low NOx Burner, selected limitation of 0.06 lb/MMBtu, operation 8,760 hour/yr

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	2.71E-04	1.55E-04	9.66E-03	2.32E-01	4.38E-04	0.24

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	6.44E-05	1.42E-04	1.80E-04	4.90E-05	2.71E-04	7.06E-04
Worst Case Potential Emission in tons/yr	2.32E-01					
Total Potential Emission in tons/yr	2.43E-01					

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations**  
**Refinery Gas Combustion Only**  
**210-H-101**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modificaiton No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity (MMBtu/hr)	HHV mmBtu	Fuel Usage (MMCF/yr)
	mmscf	
19.9	900	194

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	2.0	0.04	5.5	84
					lb/MMBtu		
Potential Emission in tons/yr	0.18	0.74	0.74	0.20	3.49	0.53	8.15

**Methodology**  
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations****Natural Gas Combustion Only****210-H-101****Company Name: CountyMark Refining and Logistics, LLC****Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620****Significant Source Modification No.: 129-37428-00003****Significant Permit Modification No.: 129-37429-00003****Reviewer: Kristen Willoughby**

Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
19.9	1020	171

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	140.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.16	0.65	0.65	0.05	11.99	0.47	7.19

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

\*\*Low NOx Burner, selected limitation of 0.06 lb/MMBtu, operation 8,760 hour/yr

HAPs - Organics						
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.80E-04	1.03E-04	6.42E-03	1.54E-01	2.91E-04	0.16

HAPs - Metals						
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.28E-05	9.42E-05	1.20E-04	3.25E-05	1.80E-04	4.69E-04
Worst Case Potential Emission in tons/yr	1.61E-01					
Total Potential Emission in tons/yr	1.62E-01					

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations  
Refinery Gas Combustion Only**

**MM BTU/HR <100**

**Company Name: CountyMark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	
19.5		167.47	FCCU Raw Oil Pre-heater (500-H-101)
20		171.76	Unifier Heater (400-H5)
10		85.88	Cycle Oil Heater (H-H2)
12.2		104.78	Naptha Splitter Heater (900-H1)
14.1		121.09	Vacuum Heater (200-H4)
27		231.88	Old Platform Heater (Naptha Splitter Reboiler 900-H2)
10.1		86.74	Auxiliary Crude Heater (200-H1)
5.92		50.84	Platform Stabilizer Reb (300-H4)
6.27		53.85	Vacuum Heater Husky (200-H3)
6.3		54.11	LSG Reactor Charge Heater (810-H101)
131.4	1020	1128.41	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2 28.5 950 x %S	NOx 100 **see below	VOC 5.5	CO 84
Potential Emission in tons/yr	1.1	4.3	4.3	16.1	56.4	3.1	47.4

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

#### HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	1.185E-03	6.770E-04	4.232E-02	1.016E+00	1.918E-03	1.062E+00

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	2.821E-04	6.206E-04	7.899E-04	2.144E-04	1.185E-03	3.092E-03
<b>Total HAPs</b>						<b>1.065E+00</b>
<b>Worst HAP</b>						<b>1.016E+00</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Company Name: CountyMark Refining and Logistics, LLC****Address City IN Zip: 1200 Refinery Rd, Mount Vernon, IN 47620****Significant Source Modification No.: 129-37428-00003****Significant Permit Modification No.: 129-37429-00003****Reviewer: Kristen Willoughby**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	
0.09		0.77	Loading Rack Flare
1.54		13.23	Claus Unit Startup Burner (124-1)
0.92		7.90	South Flare (520-H-163)
2.6	1020	21.9	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.02	0.08	0.08	0.01	1.10	0.06	0.92

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05	2.060E-02

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05	6.001E-05
	Total HAPs					2.066E-02
	Worst HAP					1.971E-02

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	
1.29		11.08	Incinerator Burner (124-2)
5.49		47.15	Vacuum Heater (200-H6)
6.8	1020	58.2	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.06	0.22	0.22	0.02	2.91	0.16	2.45

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPS Calculations**

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	6.114E-05	3.494E-05	2.184E-03	5.241E-02	9.899E-05	5.478E-02

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.456E-05	3.203E-05	4.076E-05	1.106E-05	6.114E-05	1.595E-04
					<b>Total HAPs</b>	<b>5.494E-02</b>
					<b>Worst HAP</b>	<b>5.241E-02</b>

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**Refinery Gas Combustion Only**  
**MMBTU/HR >100**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Heat Input Capacity MMBTu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
1.29		13.09 Incinerator Burner (124-2)
5.49		55.71 Vacuum Heater (200-H6)
6.8	863.25	68.8

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2 28.5 **950 x %S	NOx 100.0 ***see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.07	0.26	0.26	846.35	3.44	0.19	2.89

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

PM2.5 emission factor is condensable and filterable PM2.5 combined.

\*\* Emission Factor for SOx is based on a 0.03 %S.

\*\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBTu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBTu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Total - Organics
Potential Emission in tons/yr	7.22E-05	4.13E-05	2.58E-03	6.19E-02	1.17E-04	0.06

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total - Metals
Potential Emission in tons/yr	1.72E-05	3.78E-05	4.82E-05	1.31E-05	7.22E-05	1.89E-04
					<b>Total HAPs</b>	0.06
					<b>Worst HAP</b>	0.06

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations**  
**GenB5 - Diesel Fuel**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	720.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	360,000
Sulfur Content (S) of Fuel (% by weight)	0.002

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx*	VOC	CO*
Emission Factor in g/KW-hr	0.20	0.20	0.20	-	4.0	-	3.5
Emission Factor in lb/hp-hr	3.29E-04	3.29E-04	3.29E-04	1.21E-05 8.09E-03S	6.58E-03	7.05E-04	5.75E-03
Potential Emission in tons/yr	0.06	0.06	0.06	2.18E-03	1.18	0.13	1.04

\* 1.0 g/KW-h = 0.001643986806 lb/hp-h

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.84E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	9.78E-04	3.54E-04	2.43E-04	9.94E-05	3.31E-05	9.93E-06	2.67E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>1.98E-03</b>
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**Methodology**

Emission Factors PM, CO, NOx - Subpart IIII (referencing 40 CFR 89.112)

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.4-1 and 3.4-3

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (<=600 HP)**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Emission Factor in lb/hp-hr				Pollutant						
				PM**	PM10**	direct PM2.5**	SO2	NOx	VOC	CO
				0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Unit	Installation Date	Output Horsepower Rating (hp)	Potential Throughput* (hp-hr/yr)	Potential Emissions (tpy)						
700-P33 North Pond Fire Pump	2008	420	210,000	0.23	0.23	0.23	0.22	3.26	0.26	0.70
700-C8 Air Compressor	2006	130	65,000	0.07	0.07	0.07	0.07	1.01	0.08	0.22
700-G2 Boilerhouse	2006	393	196,500	0.22	0.22	0.22	0.20	3.05	0.25	0.66
700-P32 No. 2 Fire Pond Pump	1992	302	151,000	0.17	0.17	0.17	0.15	2.34	0.19	0.50
1000-P33B	1984	240	120,000	0.13	0.13	0.13	0.12	1.86	0.15	0.40
700-P31 Golf Course Pond Pump	1967	130	65,000	0.07	0.07	0.07	0.07	1.01	0.08	0.22
Ref-G4 South Control Room Generator	2014	200	100,000	0.11	0.11	0.11	0.10	1.55	0.13	0.33
RefG3 North Control Room Generator	2014	200	100,000	0.11	0.11	0.11	0.10	1.55	0.13	0.33
700-G6 Flare Gas CEMs Generator	2014	130	65,000	0.07	0.07	0.07	0.07	1.01	0.08	0.22
Main Office Generator	2002	50	25,000	0.03	0.03	0.03	0.03	0.39	0.03	0.08
Total:				1.21	1.21	1.21	1.12	17.01	1.38	3.67

\*All of these units meet the requirements of an emergency generator under 40 CFR 63.6640(f).

\*\*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

**Hazardous Air Pollutants (HAPs)**

Emission Factor in lb/hp-hr****				Pollutant							
				Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
				6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Emission Unit	Installation Date	Output Horsepower Rating (hp)	Potential Throughput* (hp-hr/yr)	Potential Emissions (tpy)							
700-P33 North Pond Fire Pump	2008	420	210,000	6.86E-04	3.01E-04	2.09E-04	2.87E-05	8.67E-04	5.64E-04	6.80E-05	1.23E-04
700-C8 Air Compressor	2006	130	65,000	2.12E-04	9.30E-05	6.48E-05	8.90E-06	2.68E-04	1.74E-04	2.10E-05	3.82E-05
700-G2 Boilerhouse	2006	393	196,500	6.42E-04	2.81E-04	1.96E-04	2.69E-05	8.12E-04	5.28E-04	6.36E-05	1.16E-04
700-P32 No. 2 Fire Pond Pump	1992	302	151,000	4.93E-04	2.16E-04	1.51E-04	2.07E-05	6.24E-04	4.05E-04	4.89E-05	8.88E-05
1000-P33B	1984	240	120,000	3.92E-04	1.72E-04	1.20E-04	1.64E-05	4.96E-04	3.22E-04	3.89E-05	7.06E-05
700-P31 Golf Course Pond Pump	1967	130	65,000	2.12E-04	9.30E-05	6.48E-05	8.90E-06	2.68E-04	1.74E-04	2.10E-05	3.82E-05
Ref-G4 South Control Room Generator	2014	200	100,000	3.27E-04	1.43E-04	9.98E-05	1.37E-05	4.13E-04	2.68E-04	3.24E-05	5.88E-05
RefG3 North Control Room Generator	2014	200	100,000	3.27E-04	1.43E-04	9.98E-05	1.37E-05	4.13E-04	2.68E-04	3.24E-05	5.88E-05
700-G6 Flare Gas CEMs Generator	2014	130	65,000	2.12E-04	9.30E-05	6.48E-05	8.90E-06	2.68E-04	1.74E-04	2.10E-05	3.82E-05
Main Office Generator	2002	50	25,000	8.16E-05	3.58E-05	2.49E-05	3.42E-06	1.03E-04	6.71E-05	8.09E-06	1.47E-05
Potential Emission in tons/yr				3.58E-03	1.57E-03	1.09E-03	1.50E-04	4.53E-03	2.95E-03	3.55E-04	6.45E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>		<b>1.49E-02</b>
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**Methodology**

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

**Appendix A: Emission Calculations**  
**Fugitive Emission Components**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

	Count	Screening Value	EPA Fugitive Emission Protocol Factors	VOC (lb/hr)	VOC (ton/yr)	Source for Emission Factors
<i>For DHT Project</i>						
Light liquid and vapor valve	6					
default - zero	5.9		7.80E-06 kg/hr/source	1.01E-04	4.43E-04	Table 2-12
2% leaking @ 500 ppm	0.1	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	6.25E-05	2.74E-04	Table 2-10
Flanges (any service)	15					
default - zero	14.7		3.10E-07 kg/hr/source	1.00E-05	4.40E-05	Table 2-12
2% leaking @ 500 ppm	0.3	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	2.41E-04	1.05E-03	Table 2-10
<i>For Unifier Project</i>						
Light liquid and vapor valve	52					
default - zero	51		7.80E-06 kg/hr/source	8.76E-04	3.84E-03	Table 2-12
2% leaking @ 500 ppm	1	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	5.42E-04	2.37E-03	Table 2-10
Flanges (any service)	130					
default - zero	127		3.10E-07 kg/hr/source	8.71E-05	3.81E-04	Table 2-12
2% leaking @ 500 ppm	3	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	2.09E-03	9.14E-03	Table 2-10
<i>Vacuum Off-gas Routing Project</i>						
Light liquid and vapor valve	50					
default - zero	49		7.80E-06 kg/hr/source	8.43E-04	3.69E-03	Table 2-12
2% leaking @ 500 ppm	1	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	5.21E-04	2.28E-03	Table 2-10
Flanges (any service)	125					
default - zero	123		3.10E-07 kg/hr/source	8.41E-05	3.68E-04	Table 2-12
2% leaking @ 500 ppm	2	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	1.60E-03	7.03E-03	Table 2-10
Compressors ("Other")	2					
default - zero	1.96		4.00E-06 kg/hr/source	1.73E-05	7.57E-05	Table 2-12
2% leaking @ 10000 ppm	0.04	10000	1.36E-05 x SV <sup>0.589</sup> kg/hr	2.72E-04	1.19E-03	Table 2-10
<i>For Sats Gas Tanks &amp; New Tank Projects</i>						
Light liquid and vapor valve	5					
default - zero	5		7.80E-06 kg/hr/source	8.43E-05	3.69E-04	Table 2-12
2% leaking @ 500 ppm	0.1	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	5.21E-05	2.28E-04	Table 2-10
Light liquid - Pumps	50					
default - zero	49	0	2.40E-05 kg/hr/source	0.0026	1.14E-02	Table 2-12
2% leaking @ 500 ppm	1	2000	5.03E-05 x SV <sup>0.610</sup> kg/hr	0.0114	5.01E-02	Table 2-10
Flanges (any service)	12.5					
default - zero	12.3		3.10E-07 kg/hr/source	8.37E-06	3.67E-05	Table 2-12
2% leaking @ 500 ppm	0.3	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	2.01E-04	8.79E-04	Table 2-10
<i>Sat Gas Plant Fugitive Emission Components</i>						
Light liquid and vapor valve	950					
default - zero	931		7.80E-06 kg/hr/source	1.60E-02	7.01E-02	Table 2-12
2% leaking @ 500 ppm	19.0	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	9.89E-03	4.33E-02	Table 2-10
Heavy liquid valve	50					
default - zero	49		7.80E-06 kg/hr/source	8.43E-04	3.69E-03	Table 2-12
2% leaking @ 500 ppm	1.0	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	5.21E-04	2.28E-03	Table 2-10
Light liquid - Pumps	10					
default - zero	9.9	0	2.40E-05 kg/hr/source	0.0005	2.29E-03	Table 2-12
2% leaking @ 500 ppm	0.1	2000	5.03E-05 x SV <sup>0.610</sup> kg/hr	0.0011	5.01E-03	Table 2-10
Flanges (any service)	2500					
default - zero	2450.0		3.10E-07 kg/hr/source	1.67E-03	7.33E-03	Table 2-12
2% leaking @ 500 ppm	50.0	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	4.01E-02	1.76E-01	Table 2-10
Compressors ("Other")	1					
default - zero	1.0		4.00E-06 kg/hr/source	8.64E-06	3.79E-05	Table 2-12
2% leaking @ 500 ppm	0.02	10000	1.36E-05 x SV <sup>0.589</sup> kg/hr	1.36E-04	5.96E-04	Table 2-10
<i>Akkylation Unit Isostripper Tower</i>						
Light liquid and vapor valve	190					
default - zero	186		7.80E-06 kg/hr/source	3.20E-03	1.40E-02	Table 2-12
2% leaking @ 500 ppm	3.8	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	1.98E-03	8.67E-03	Table 2-10
Heavy liquid valve	10					
default - zero	10		7.80E-06 kg/hr/source	1.69E-04	7.38E-04	Table 2-12
2% leaking @ 500 ppm	0.2	500	2.29E-06 x SV <sup>0.746</sup> kg/hr	1.04E-04	4.56E-04	Table 2-10
Light liquid - Pumps	0					
default - zero	0	0	2.40E-05 kg/hr/source	0.0000	0.00E+00	Table 2-12
2% leaking @ 500 ppm	0	2000	5.03E-05 x SV <sup>0.610</sup> kg/hr	0.0000	0.00E+00	Table 2-10
Flanges (any service)	500					
default - zero	490.0		3.10E-07 kg/hr/source	3.35E-04	1.47E-03	Table 2-12
2% leaking @ 500 ppm	10.0	500	4.61E-06 x SV <sup>0.703</sup> kg/hr	8.02E-03	3.51E-02	Table 2-10
<b>Total:</b>				<b>0.11</b>	<b>0.47</b>	

Note: Emissions were not calculated for all of the leaks at this facility.

**Appendix A: Emission Calculations****Cooling Towers**

**Company Name:** CountyMark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Rd, Mount Vernon, IN 47620

**Significant Source Modification No.:** 129-37428-00003

**Significant Permit Modification No.:** 129-37429-00003

**Reviewer:** Kristen Willoughby

**Cooling Tower #5**

Circulation Rate	4,000.00	gpm
Average VOC em. rate from Subpart CC testing	0.07	lb/hr
Average TDS in circulating cooling water	1,950.00	mg/l
PM/PM10/PM2.5 emission factor	0.003	lb/1000 gal

PTE of Cooling Tower #5	PM/PM10/PM2.5 (lb/hr)	PM/PM10/PM2.5 (ton/yr)	VOC (lb/hr)	VOC (ton/yr)
PTE	0.74	3.25	0.08	0.35

**Notes:****Cooling Tower #5**

Ratio of AP-42 factor of 0.019 lb/Mgal @ 12,000 ppm TDS. Assumes total liquid drift is 0.02 % of total liquid flow (AP-42 Table 13.4-1).

**Cooling Tower #1N&S**

Circulation Rate	6,600.00	gpm
Average VOC em. rate from Subpart CC testing	0.198	lb/hr
Average TDS in circulating cooling water	1,950.00	mg/l
PM/PM10/PM2.5 emission factor	0.003	lb/1000 gal

PTE of Cooling Tower #5	PM/PM10/PM2.5 (lb/hr)	PM/PM10/PM2.5 (ton/yr)	VOC (lb/hr)	VOC (ton/yr)
PTE/Project Actual After Project	1.22	5.36	0.21	0.94

**Notes:**

Ratio of AP-42 factor of 0.019 lb/Mgal @ 12,000 ppm TDS. Assumes total liquid drift is 0.02 % of total liquid flow (AP-42 Table 13.4-1).

**Appendix B: Emission Calculations  
Summary**

Company Name: Countrymark Refining and Logistics, LLC  
Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620  
Significant Source Modification No.: 129-37428-00003  
Significant Permit Modification No.: 129-37429-00003  
Reviewer: Kristen Willoughby

**1. Part 70 Source Modification Determination**

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e	Worst case HAP (Hydrogen Cyanide)	Total HAPs
<b>PTE (ton/yr)</b>										
Before 2017 TAR project PTE for V-5 (FCC Regenerator)	56.09	44.10	19.42	145.64	10.82	0.24	22.14	74,433	11.65	15.45
After 2017 TAR project PTE for V-5 (FCC Regenerator)	56.83	44.68	19.67	151.26	10.96	0.24	21.92	75,412	26.31	30.15
<b>Change in PTE for FCC Regenerator</b>	<b>0.74</b>	<b>0.58</b>	<b>0.26</b>	<b>5.63</b>	<b>0.14</b>	<b>0.00</b>	<b>0.00</b>	<b>979</b>	<b>14.66</b>	<b>14.71</b>
Before 2017 TAR project PTE for 500-H-101	0.17	0.67	0.67	0.15	8.81	0.48	7.40	8,172	0.00	0.17
After 2017 TAR project PTE for 500-H-101	0.18	0.72	0.72	0.16	9.49	0.52	7.97	8,804	0.00	0.18
<b>Change in PTE for FCC Preheater 500-H101</b>	<b>0.01</b>	<b>0.05</b>	<b>0.05</b>	<b>0.01</b>	<b>0.68</b>	<b>0.04</b>	<b>0.57</b>	<b>632</b>	<b>0.00</b>	<b>0.01</b>
Before 2017 TAR project PTE for 810-H-101	0.06	0.22	0.22	0.05	1.19	0.16	2.45	2702	0.00	0.05
After 2017 TAR project PTE for 810-H-101	0.06	0.23	0.23	0.05	1.26	0.17	2.58	2844	0.00	0.06
<b>Change in PTE for 810-H-101</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.00</b>	<b>0.06</b>	<b>0.01</b>	<b>0.13</b>	<b>142</b>	<b>0.00</b>	<b>2.89E-03</b>
Before 2017 TAR project PTE for Cooling Towers	4.95	4.95	4.95	-	-	0.87	-	-	-	-
After 2017 TAR project PTE for Cooling Towers	5.36	5.36	5.36	-	-	0.94	-	-	-	-
<b>Change in PTE for Cooling Towers #1N and #1S</b>	<b>0.41</b>	<b>0.41</b>	<b>0.41</b>	<b>0.00</b>	<b>0.00</b>	<b>0.07</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>
New Sats Gas valves, flanges, compressor	-	-	-	-	-	0.31	-	-	-	-
New Alkylation unit tower valves, flanges	-	-	-	-	-	0.06	-	-	-	-
New Premium tank 1000-T400	-	-	-	-	-	2.75	-	-	-	-
New LPG tanks	-	-	-	-	-	4.49E-03	-	-	-	-
New tank 4A	-	-	-	-	-	1.29	-	-	-	-
New tank 4B	-	-	-	-	-	1.29	-	-	-	-
Modified Process	1.16	1.05	0.72	5.64	0.89	0.12	0.70	1753.70	14.66	14.72
New Emission Units	-	-	-	-	-	5.71	-	-	-	-
<b>Change in PTE due to Project</b>	<b>1.16</b>	<b>1.05</b>	<b>0.72</b>	<b>5.64</b>	<b>0.89</b>	<b>5.83</b>	<b>0.70</b>	<b>1,754</b>	<b>14.66</b>	<b>14.72</b>

**2. Actual to Projected Actual test**

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e	Beryllium	Lead	Mercury
<b>ton/yr</b>											
<b>New Units (PTE)</b>											
New Premium tank 1000-T400	-	-	-	-	-	2.75	-	-	-	-	-
New Sats Gas Unit fugitive components	-	-	-	-	-	0.31	-	-	-	-	-
Two new LPG storage tanks (pressure tanks) fugitive con	-	-	-	-	-	0.004	-	-	-	-	-
New 5500 BBI IFR tank 4A	-	-	-	-	-	1.29	-	-	-	-	-
New 5500 BBI IFR tank 4B	-	-	-	-	-	1.29	-	-	-	-	-
New Alkylation Unit Column	-	-	-	-	-	0.06	-	-	-	-	-
<b>PTE New Units Totals:</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.71</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

## Appendix B: Emission Calculations Summary

Company Name: Countrymark Refining and Logistics, LLC  
Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620  
Significant Source Modification No.: 129-37428-00003  
Significant Permit Modification No.: 129-37429-00003  
Reviewer: Kristen Willoughby

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e	Beryllium	Lead	Mercury
	Existing Units - Actual to Projected Actual/Allowable (ATPA)										
	ton/yr										
FCCU Regenerator											
Baseline Emissions	43.11	33.90	14.93	10.11	8.32	0.18	16.63	57,212	2.24E-05	2.00E-04	1.20E-04
Projected Actual Emissions	3.05	2.40	1.06	11.96	9.81	0.22	19.78	68,556	2.68E-05	2.39E-04	1.44E-04
ATPA (tpy)	< 0	< 0	< 0	1.85	1.50	0.04	3.14	11,344	4.44E-06	3.96E-05	2.38E-05
FCCU Preheater											
Baseline Emissions	0.13	0.54	0.54	0.12	7.06	0.39	5.93	6,545	-	3.53E-05	-
Projected Actual Emissions	0.18	0.72	0.72	0.16	9.49	0.52	7.97	8,804	-	4.75E-05	-
ATPA (tpy)	0.05	0.19	0.19	0.04	2.44	0.13	2.05	2,259	0.00	1.22E-05	0.00
Alkylation Unit Heater											
Baseline Emissions	0.10	0.41	0.41	0.09	5.41	0.30	4.54	5,016	-	2.70E-05	-
Projected Actual Emissions	0.11	0.46	0.46	0.10	6.00	0.33	5.04	5,566	-	3.00E-05	-
ATPA (tpy)	0.01	0.05	0.05	0.01	0.59	0.03	0.50	551	0.00	2.97E-06	0.00
Steam Demand (Boiler 5)											
Baseline Emissions	0.37	1.48	1.48	0.32	4.69	1.07	16.36	18,071	-	9.74E-05	-
Projected Actual Emissions	0.46	1.84	1.84	0.40	5.84	1.33	20.36	22,485	-	1.21E-04	-
ATPA (tpy)	0.09	0.36	0.36	0.08	1.15	0.26	4.00	4,414	0.00	2.38E-05	0.00
LSG Heater											
Baseline Emissions	0.05	0.22	0.22	0.05	1.18	0.16	2.41	2,666	-	1.44E-05	-
Projected Actual Emissions	0.06	0.23	0.23	0.05	1.26	0.17	2.58	2,844	-	1.53E-05	-
ATPA (tpy)	3.66E-03	0.01	0.01	0.00	0.08	0.01	0.16	179	0.00	9.63E-07	0.00
Sulfur Recovery Unit											
Baseline Emissions	-	-	-	1.39	-	-	-	-	-	-	-
Projected Actual Emissions	-	-	-	1.59	-	-	-	-	-	-	-
ATPA (tpy)	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FCC Gasoline Storage											
Baseline Emissions	-	-	-	-	-	4.40E-03	-	-	-	-	-
Projected Actual Emissions	-	-	-	-	-	5.00E-03	-	-	-	-	-
ATPA (tpy)	0.00	0.00	0.00	0.00	0.00	5.98E-04	0.00	0.00	0.00	0.00	0.00
Alkylate Storage											
Baseline Emissions	-	-	-	-	-	0.19	-	-	-	-	-
Projected Actual Emissions	-	-	-	-	-	0.20	-	-	-	-	-
ATPA (tpy)	0.00	0.00	0.00	0.00	0.00	4.83E-03	0.00	0.00	0.00	0.00	0.00
Loading Rack											
Baseline Emissions	-	-	-	-	-	4.67	-	-	-	-	-
Projected Actual Emissions	-	-	-	-	-	4.92	-	-	-	-	-
ATPA (tpy)	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00
Cooling Tower #1 N&S											
Baseline Emissions	4.95	4.95	4.95	-	-	0.87	-	-	-	-	-
Projected Actual Emissions	5.36	5.36	5.36	-	-	0.94	-	-	-	-	-
ATPA (tpy)	0.41	0.41	0.41	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00

[illegible]



# Appendix B: Emission Calculations

## Process Emissions

### FCC Regenerator

Company Name: Countrymark Refining and Logistics, LLC

Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

Reviewer: Kristen Willoughby

	Barrels per Day (BPH) Feed Rate	Barrels per calendar year	
Baseline Unit Charge Rate (Actuals) before project	7,010	2,558,650	Average charge rate from June 1, 2014 to May 31, 2016.
Max Rate before project	9,120	3,328,800	
Projected Actual Rate after project	8,400	3,066,000	
Max Rate after project	9,240	3,372,600	
	DSCFM	DSCFM @0% O <sub>2</sub>	
Baseline Regenerator Flue gas flow rate (Actuals) before project	12,736	12,005	Average flow rate from June 1, 2014 to May 31, 2016, calculated using the air flow into regenerator and equation in 40 CFR §63.1573. Average O <sub>2</sub> concentration - 1.2%.
Max Regenerator Flue gas flow rate before project	14,889	13,990	Flow rate during the time period with the highest charge rate from June 1, 2014 to May 31, 2016. O <sub>2</sub>
Projected Actual Regenerator Flue gas flow rate after project	15,177	14,320	Design flow rate after the project at 8,400 BPD charge. Design O <sub>2</sub> % at this feed rate - 1.18%
Max Potential Regenerator Flue gas flow rate after project	17,490	16,569	Design flow rate after the project at 9,240 BPD charge. Design O <sub>2</sub> % at this feed rate - 1.1%

## Baseline (Actual) Emissions in tons/yr before project

	Pollutant						
	PM	PM10	direct PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor, lb/bbl (bbl of feed)	0.0337	0.0265	0.0117	0.0079	0.0065	0.0001	0.0130
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	Past 24-month CEMS data, converted to	Past 24-month CEMS data, converted to lb/bbl	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl
Baseline (Actual) Emissions in tons/yr before project, at actual 24-month period feed rate	43.11	33.90	14.93	10.11	8.32	0.18	16.63

## Permitted Max Rate (Allowable) in tons/yr before project

	0.0337	0.0265	0.0117	0.0094	0.0083	0.0001	0.0842
Emission Factor, lb/bbl (bbl of feed)	0.0337	0.0265	0.0117	0.0094	0.0083	0.0001	0.0842
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	25 ppm @0%O <sub>2</sub> , converted to lb/bbl, Consent Decree 365-day rolling average limit	30 ppm @0%O <sub>2</sub> , converted to lb/bbl, Consent Decree 365-day rolling average limit	Stack test derived factor, see below	500 ppm @0%O <sub>2</sub> , converted to lb/bbl, NSPS Subpart J, NESHAP Subpart UUU and Consent Decree Limit
Max Rate in tons/yr before project, at 380 BPH feed	56.09	44.10	19.42	15.65	13.81	0.24	140.14

**Appendix B: Emission Calculations****Process Emissions****FCC Regenerator****Company Name: Countrymark Refining and Logistics, LLC****Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620****Significant Source Modification No.: 129-37428-00003****Significant Permit Modification No.: 129-37429-00003****Reviewer: Kristen Willoughby**

Uncontrolled, Unlimited Potential Emission in tons/yr before project	Pollutant						
	PM	PM10	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor, lb/bbl (bbl of feed)	0.0337	0.0265	0.0117	0.0875	0.0065	0.0001	0.0133
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	Measured concentration without Desox catalyst - 227 ppm, converted to lb/bbl	Past 24-month CEMS data, converted to lb/bbl	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl
Max Rate in tons/yr before project, at 380 BPH feed	56.09	44.10	19.42	145.64	10.82	0.24	22.14

**Projected Actual Emission in tons/yr after project**

Emission Factor, lb/bbl (bbl of feed)	0.0337	0.0265	0.0117	0.0078	0.0064	0.0001	0.0129
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl, @ future exhaust flow rate	Past 24-month CEMS data, converted to lb/bbl, @ future exhaust flow rate	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl, @ future exhaust flow rate
Emission Calculation Basis	95% ESP control, plus 80 hr/yr ESP off-line	95% ESP control, plus 80 hr/yr ESP off-line	95% ESP control, plus 80 hr/yr ESP off-line				
Projected Actual Emission in tons/yr after project, at projected actual feed rate	3.05	2.40	1.06	11.96	9.81	0.22	19.78

**Potential Limited Controlled Emission in tons/yr after project**

Emission Factor, lb/bbl (bbl of feed)				0.0099	0.0085	0.000144	0.0863
Emission Factor Basis				25 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, Consent Decree 365-day rolling average limit	30 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, Consent Decree 365-day rolling average limit	Stack test derived factor, see below	500 ppm @0%O <sub>2</sub> , converted to lb/bbl, at max. design flow rate, NSPS Subpart Ja, NESHAP Subpart UUU and Consent Decree limit
Emission Calculation Basis	0.04 gr/dscf @ 0% O <sub>2</sub> , at max. exhaust design flow rate, NSPS Subpart J opting NSPS Subpart Ja grain loading limit	(PM x % PM10) + 0.00122 lb/bbl	(PM x % PM2.50) + 0.00122 lb/bbl				
Potential Limited Controlled Emission in tons/yr after project, at maximum feed rate at 8,760 hr/yr	24.88	20.72	9.77	16.69	14.33	0.24	145.53

**Uncontrolled, Unlimited Emission in tons/yr after project**

Emission Factor, lb/bbl	0.0337	0.0265	0.0117	0.0897	0.0067	0.00014	0.0136
Emission Factor Basis	Stack test derived factor, see below	Stack test derived factor, see below	Stack test derived factor, see below	Measured concentration without Desox catalyst - 227 ppm, converted to lb/bbl, at max. design flow rate	Past 24-month CEMS data, converted to lb/bbl, at max. design flow rate	Stack test derived factor, see below	Past 24-month CEMS data, converted to lb/bbl, at max. design flow rate
Uncontrolled, Unlimited Emission in tons/yr after project, maximum feed rate at 8,760 hr/yr	56.83	44.68	19.67	151.26	10.96	0.24	21.92

**Appendix B: Emission Calculations****Process Emissions****FCC Regenerator****Company Name:** Countrymark Refining and Logistics, LLC**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620**Significant Source Modification No.:** 129-37428-00003**Significant Permit Modification No.:** 129-37429-00003**Reviewer:** Kristen Willoughby

	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
Emission Factor in lb/barrel	44.61	0.0013	0.0003	
Baseline (Actual) Emissions in tons/yr - before project	57,070.69	1.67	0.33	57,211.99
Before project permitted Max Rate (Allowable) in tons/yr	74,248.88	2.17	0.44	74,432.72
Projected Actual Emissions in tons/yr after project	68,387.13	2.00	0.40	68,556.45
Potential Emissions in tons/yr after project, unlimited, uncontrolled	75,225.84	2.20	0.44	75,412.10

**Methodology**

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Particulate - worst case of October 2014 and April 2016 stack test

PM10 - Worst case size distribution from October 2014 and April 2016 stack tests + condensable PM from April 2016 stack test

PM 2.5 - Worst case size distribution from October 2014 and April 2016 stack tests + condensable PM from April 2016 stack test

HAP - EPA OAQPS Emissions Protocol for Petroleum Refineries, April 2015, HCN - April 2016 stack test

Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart Y emission calculations.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

CO2e (tons/yr) = CO2 ton/yr x CO2 GWP (1) + CH4 ton/yr x CH4 GWP (25) + N2O ton/yr x N2O GWP (298).

Stack test result summary - April 2016

Filterable PM - 0.0196 lb/bbl, 75% PM10, 31% PM2.5

Condensable PM - 0.00122 lb/bbl (100% PM10 and PM2.5)

1.228 lb PM/1000 lb coke burned

Stack test result summary - October 2014, representative of before project actual emissions

Filterable PM - 0.0337 lb/bbl, 25% PM10, 22% PM2.5

2.52 lb PM/1000 lb coke burned

VOC - October 2005 stack test, 0.144 lb/1000 bbl

# Appendix B: Emission Calculations

## Process Emissions

### FCC Regenerator

Company Name: Countrymark Refining and Logistics, LLC

Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

Reviewer: Kristen Willoughby

## HAP Emissions

Emissions Estimation Protocol for Petroleum Refineries, EPA, April 2015					ton/yr						
Metals	Ratio to Ni - ICR protocol	Calculated emission factor, lb/bbl	Site specific emission factor	Test date for site specific emission factor	Baseline (Actual) Emissions in tons/yr - before project	Before project permitted Max Rate (Allowable) in tons/yr	Projected Actual Emissions in tons/yr after project	Potential Emissions in tons/yr after project			
Antimony	0.065	3.7895E-07	1.58E-08 lb/bbl	October 2014 stack test	4.85E-04	6.31E-04	5.81E-04	6.39E-04			
Arsenic	0.010	1.749E-08			2.02E-05	2.63E-05	2.42E-05	2.66E-05			
Beryllium	0.003				2.24E-05	2.91E-05	2.68E-05	2.95E-05			
Cadmium	0.013	7.579E-08			9.70E-05	1.26E-04	1.16E-04	1.28E-04			
total chromium	0.250	3.0316E-07	3.07E-07 lb/bbl	October 2014 stack test	3.93E-04	5.11E-04	4.71E-04	5.18E-04			
Lead	0.080		1.56E-07 lb/bbl	October 2014 stack test	2.00E-04	2.60E-04	2.39E-04	2.63E-04			
Cobalt	0.052		5.83E-06 lb/bbl	April 2016 stack test	3.88E-04	5.05E-04	4.65E-04	5.11E-04			
Manganese	0.130	7.579E-07			9.70E-04	1.26E-03	1.16E-03	1.28E-03			
Nickel	1.000	7.6956E-06	3.72E-08 lb/bbl		October 2014 stack test	7.46E-03	9.70E-03	8.94E-03	9.83E-03		
Selenium	0.025		3.72E-08 lb/bbl		4.76E-05	6.19E-05	5.70E-05	6.27E-05			
Vanadium	1.320			9.85E-03	1.28E-02	1.18E-02	1.30E-02				
Zinc	0.740	4.3142E-06		5.52E-03	7.18E-03	6.61E-03	7.28E-03				
Volatile Organic Compounds											
	lb/MMbbl										
Acetaldehyde	20	2.56E-02							3.33E-02	3.07E-02	3.37E-02
Acrolein	1	1.28E-03							1.66E-03	1.53E-03	1.69E-03
Benzene	18	2.30E-02							3.00E-02	2.76E-02	3.04E-02
Bromomethane	2	2.69E-03							3.50E-03	3.22E-03	3.54E-03
1,3-Butadiene	0	4.22E-05							5.49E-05	5.06E-05	5.56E-05
Ethylbenzene	0	3.07E-04							3.99E-04	3.68E-04	4.05E-04
Formaldehyde	260	3.33E-01							4.33E-01	3.99E-01	4.38E-01
Methylene Chloride	7	8.57E-03							1.12E-02	1.03E-02	1.13E-02
Phenol	9	1.11E-02							1.45E-02	1.33E-02	1.47E-02
Toluene	4	4.48E-03							5.83E-03	5.37E-03	5.90E-03
Xylene	3	4.09E-03							5.33E-03	4.91E-03	5.40E-03
Semivolatile and Nonvolatile Organics											
Acenaphthene	3.30E-03	4.22E-06							5.49E-06	5.06E-06	5.56E-06
Acenaphthylene	1.30E-01	1.66E-04							2.16E-04	1.99E-04	2.19E-04
Anthracene	1.00E-01	1.28E-04							1.66E-04	1.53E-04	1.69E-04
Benzo(a)anthracene	5.20E-04	6.65E-07							8.65E-07	7.97E-07	8.77E-07
Benzo(a)pyrene	1.10E-02	1.41E-05							1.83E-05	1.69E-05	1.85E-05

# Appendix B: Emission Calculations

## Process Emissions

### FCC Regenerator

Company Name: Countrymark Refining and Logistics, LLC

Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

Reviewer: Kristen Willoughby

Emissions Estimation Protocol for Petroleum Refineries, EPA, April 2015					ton/yr			
Metals	Ratio to Ni ICR protocol	Calculated emission factor, lb/bbl	Site specific emission factor	Test date for site specific emission factor	Baseline (Actual) Emissions in tons/yr - before project	Before project permitted Max Rate (Allowable) in tons/yr	Projected Actual Emissions in tons/yr after project	Potential Emissions in tons/yr after project
Benzo(b)fluoranthene	3.50E-03		1.36E-04 lb/bbl	April 2016 stack test	4.48E-06	5.83E-06	5.37E-06	5.90E-06
Benzo(e)pyrene	4.50E-04				5.76E-07	7.49E-07	6.90E-07	7.59E-07
Benzo(g,h,i)perylene	4.60E-03				5.88E-06	7.66E-06	7.05E-06	7.76E-06
Benzo(k)fluoranthene	2.60E-03				3.33E-06	4.33E-06	3.99E-06	4.38E-06
Chrysene	3.30E-03				4.22E-06	5.49E-06	5.06E-06	5.56E-06
Dibenz(a,h)anthracene	4.20E-03				5.37E-06	6.99E-06	6.44E-06	7.08E-06
Fluoranthene	9.30E-02				1.19E-04	1.55E-04	1.43E-04	1.57E-04
Fluorene	3.70E-02				4.73E-05	6.16E-05	5.67E-05	6.24E-05
Indeno(1,2,3-cd)pyrene	4.40E-03				5.63E-06	7.32E-06	6.75E-06	7.42E-06
2-Methylnaphthalene	2.60E-02				3.33E-05	4.33E-05	3.99E-05	4.38E-05
Naphthalene	1.00E+00				1.28E-03	1.66E-03	1.53E-03	1.69E-03
Phenanthrene	2.40E-01				3.07E-04	3.99E-04	3.68E-04	4.05E-04
Pyrene	3.10E-03				3.97E-06	5.16E-06	4.75E-06	5.23E-06
Dioxins and Furans								
Pentachlorodibenzofurans	5.50E-07				7.04E-10	9.15E-10	8.43E-10	9.27E-10
Hexachlorodibenzofuran	1.10E-06				1.41E-09	1.83E-09	1.69E-09	1.85E-09
Heptachlorodibenzo-p-dioxin	9.40E-07				1.20E-09	1.56E-09	1.44E-09	1.59E-09
Inorganics								
Ammonia	1.30E+04		1.36E-04 lb/bbl	April 2016 stack test	1.74E-01	2.26E-01	2.08E-01	2.29E-01
Carbon disulfide	5.60E-01				7.16E-04	9.32E-04	8.58E-04	9.44E-04
Hydrogen chloride	1.80E+03				2.30E+00	3.00E+00	2.76E+00	3.04E+00
Hydrogen cyanide	7.00E+03		1.56E-02 lb/bbl	April 2016 stack test (used for future potential and projected actual)	8.96E+00	1.17E+01	23.91	26.31
Mercury	9.40E-02				1.20E-04	1.56E-04	1.44E-04	1.59E-04
Total					11.87	15.45	27.41	30.15

**Appendix B: Emission Calculations**  
**Refinery Gas Combustion**  
**FCC Preheater process heater 500-H101**  
**Company Name: Countrymark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
Baseline Heat Input (Actuals) before project	--	141.1
Max Rate before project	18.1	900
Projected Actual/Max Rate after project	19.5	900

Projected Actuals are equivalent to the new maximum firing rate after the modification

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	1.7	100.00	5.5	84
Baseline (Actual) Emissions in tons/yr before project	0.13	0.54	0.54	0.12	7.06	0.39	5.93
Max Rate in tons/yr before project	0.17	0.67	0.67	0.15	8.81	0.48	7.40
Projected Actual/Max Emission in tons/yr after project	0.18	0.72	0.72	0.16	9.49	0.52	7.97

**Hazardous Air Pollutants (HAPs)**

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene	Dichlorobenz	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Baseline (Actual) Emissions in tons/yr before project	1.5E-04	8.5E-05	5.3E-03	1.3E-01	2.4E-04	0.13
Max Rate in tons/yr before project	1.8E-04	1.1E-04	6.6E-03	1.6E-01	3.0E-04	0.17
Projected Actual/Max Emission in tons/yr after project	2.0E-04	1.1E-04	7.1E-03	1.7E-01	3.2E-04	0.18

Emission Factor in lb/MMcf	HAPs - Metals						Total HAPs
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Baseline (Actual) Emissions in tons/yr before project	3.5E-05	7.8E-05	9.9E-05	2.7E-05	1.5E-04	3.9E-04	0.13
Max Rate in tons/yr before project	4.4E-05	9.7E-05	1.2E-04	3.3E-05	1.8E-04	4.8E-04	0.17
Projected Actual/Max Emission in tons/yr after project	4.7E-05	1.0E-04	1.3E-04	3.6E-05	2.0E-04	5.2E-04	0.18

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Emission Factor in lb/MMcf	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
	92,270	5.95	1.19	
Baseline (Actual) Emissions in tons/yr before project	6,509.65	0.42	0.08	6,545.16
Max Rate in tons/yr before project	8,127.76	0.52	0.10	8,172.10
Projected Actual/Max Emission in tons/yr after project	8,756.42	0.56	0.11	8,804.19

**Methodology**

All emission factors are based on normal firing.

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart C emission calculations.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Actual Fuel Input - June 1, 2014 to May 31, 2016.

**Appendix B: Emission Calculations**  
**Refinery Gas Combustion**  
**Alkyltion unit process heater 100-H1**  
**Company Name: Countrymark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
Baseline Heat Input (Actuals) before project	--	108
Max Rate before project	13.2	128
Projected Actual Rate after project		120

No change in rated maximum firing rate.

	Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	1.7	100.00	5.5	84
Baseline (Actual) Emissions in tons/yr before project	0.10	0.41	0.41	0.09	5.41	0.30	4.54
Max Rate in tons/yr before project	0.12	0.49	0.49	0.11	6.42	0.35	5.40
Projected Actual Emission in tons/yr after project	0.11	0.46	0.46	0.10	6.00	0.33	5.04

**Hazardous Air Pollutants (HAPs)**

	HAPs - Organics					
	Benzene	Dichloroben	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Baseline (Actual) Emissions in tons/yr before project	1.1E-04	6.5E-05	4.1E-03	9.7E-02	1.8E-04	0.10
Max Rate in tons/yr before project	1.3E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	0.12
Projected Actual Emission in tons/yr after project	1.3E-04	7.2E-05	4.5E-03	1.1E-01	2.0E-04	0.11

	HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Baseline (Actual) Emissions in tons/yr before project	2.7E-05	5.9E-05	7.6E-05	2.1E-05	1.1E-04	3.0E-04	<b>0.10</b>
Max Rate in tons/yr before project	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.3E-04	3.5E-04	<b>0.12</b>
Projected Actual Emission in tons/yr after project	3.0E-05	6.6E-05	8.4E-05	2.3E-05	1.3E-04	3.3E-04	<b>0.11</b>

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
Emission Factor in lb/MMcf	92,270	5.95	1.19	
Baseline (Actual) Emissions in tons/yr before project	4,988.58	0.32	0.06	5,015.79
Max Rate in tons/yr before project	5,927.42	0.38	0.08	5,959.76
Projected Actual Emission in tons/yr after project	5,536.20	0.36	0.07	5,566.40

**Methodology**

All emission factors are based on normal firing.

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart C emission calculations.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Actual Fuel Input - June 1, 2014 to May 31, 2016.

**Appendix B: Emission Calculations**  
**Refinery Gas Combustion**  
**LSG unit reactor charge process heater 810-H-101**  
**Company Name: Countrymark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

	Heat Input Capacity (MMBtu/hr)	HHV mmBtu mmscf	Fuel Usage (MMCF/yr)
Baseline Heat Input (Actuals) before project	--	--	57.47
Max Rate before project	5.985	900	58.25
Projected Actual/Max Rate after project	6.3	900	61.32

Projected Actuals are equivalent to the new maximum firing rate after the modification

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	1.7	41.00	5.5	84
Baseline (Actual) Emissions in tons/yr before project	0.05	0.22	0.22	0.05	1.18	0.16	2.41
Max Rate in tons/yr before project	0.06	0.22	0.22	0.05	1.19	0.16	2.45
Projected Actual/Max Emission in tons/yr after project	0.06	0.23	0.23	0.05	1.26	0.17	2.58

**Hazardous Air Pollutants (HAPs)**

	HAPs - Organics					
	Benzene	Dichloroben	Formaldehyde	Hexane	Toluene	Total - Organics
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Baseline (Actual) Emissions in tons/yr before project	6.0E-05	3.4E-05	2.2E-03	5.2E-02	9.8E-05	0.05
Max Rate in tons/yr before project	6.1E-05	3.5E-05	2.2E-03	5.2E-02	9.9E-05	0.05
Projected Actual/Max Emission in tons/yr after project	6.4E-05	3.7E-05	2.3E-03	5.5E-02	1.0E-04	0.06

	HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Baseline (Actual) Emissions in tons/yr before project	1.4E-05	3.2E-05	4.0E-05	1.1E-05	6.0E-05	1.6E-04	0.05
Max Rate in tons/yr before project	1.5E-05	3.2E-05	4.1E-05	1.1E-05	6.1E-05	1.6E-04	0.05
Projected Actual/Max Emission in tons/yr after project	1.5E-05	3.4E-05	4.3E-05	1.2E-05	6.4E-05	1.7E-04	0.06

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
Emission Factor in lb/MMcf	92,270	5.95	1.19	
Baseline (Actual) Emissions in tons/yr before project	2,651.38	0.17	0.03	2,665.84
Max Rate in tons/yr before project	2,687.55	0.17	0.03	2,702.21
Projected Actual/Max Emission in tons/yr after project	2,829.00	0.18	0.04	2,844.43

**Methodology**

All emission factors are based on normal firing.  
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart C emission calculations.  
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).  
Actual Fuel Input - June 1, 2014 to May 31, 2016.



**Appendix B: Emission Calculations****Refinery Gas Combustion****Boiler 5****Company Name:** Countrymark Refining and Logistics, LLC**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620**Significant Source Modification No.:** 129-37428-00003**Significant Permit Modification No.:** 129-37429-00003**Reviewer:** Kristen Willoughby

Heat Input Capacity (MMBtu/hr)	HHV mmBtu	Fuel Usage (MMCF/yr)
	mmscf	
Baseline Heat Input (Actuals) before project	--	389.6
Permitted Max Rate before project	118.1	900
Projected Actual Rate after project	49.8	900

No change in rated maximum firing rate.

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	1.7	0.027 lb/mmbtu	5.5	84
Baseline (Actual) Emissions in tons/yr before project	0.37	1.48	1.48	0.32	4.69	1.07	16.36
Max Rate (Allowable) in tons/yr before project	1.09	4.37	4.37	0.95	13.86	3.16	48.30
Projected Actual Emission in tons/yr after project	0.46	1.84	1.84	0.40	5.84	1.33	20.36

**Hazardous Air Pollutants (HAPs)**

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene	Dichloroben	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Baseline (Actual) Emissions in tons/yr before project	4.1E-04	2.3E-04	1.5E-02	3.5E-01	6.6E-04	0.37
Max Rate (Allowable) in tons/yr before project	1.2E-03	6.9E-04	4.3E-02	1.0E+00	2.0E-03	1.08
Projected Actual Emission in tons/yr after project	5.1E-04	2.9E-04	1.8E-02	4.4E-01	8.2E-04	0.46

Emission Factor in lb/MMcf	HAPs - Metals						Total HAPs
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Baseline (Actual) Emissions in tons/yr before project	9.7E-05	2.1E-04	2.7E-04	7.4E-05	4.1E-04	1.1E-03	<b>0.37</b>
Max Rate (Allowable) in tons/yr before project	2.9E-04	6.3E-04	8.0E-04	2.2E-04	1.2E-03	3.2E-03	<b>1.09</b>
Projected Actual Emission in tons/yr after project	1.2E-04	2.7E-04	3.4E-04	9.2E-05	5.1E-04	1.3E-03	<b>0.46</b>

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Emission Factor in lb/MMcf	Greenhouse Gas			
	CO2	CH4	N2O	CO2e
	92,270	5.95	1.19	
Baseline (Actual) Emissions in tons/yr before project	17,972.81	1.16	0.23	18,070.86
Max Rate (Allowable) in tons/yr before project	53,050.45	3.42	0.68	53,339.86
Projected Actual Emission in tons/yr after project	22,362.56	1.44	0.29	22,484.55

**Methodology**

All emission factors are based on normal firing.  
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
Greenhouse gas emission factors based upon 40 CFR Part 98 Subpart C emission calculations.  
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).  
Actual Fuel Input - June 1, 2014 to May 31, 2016.

**Appendix B: Emission Calculations****Process Emissions****Sulphur Recovery Plant****Company Name:** Countrymark Refining and Logistics, LLC**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620**Significant Source Modification No.:** 129-37428-00003**Significant Permit Modification No.:** 129-37429-00003**Reviewer:** Kristen WilloughbySulfur Recovery Unit emissions

Estimate of 0.25 long ton/day additional sulfur production at the SRU.

Baseline Sulfur Production, long ton/yr		
2014	2015	Average
1,957.13	2,135.13	2,046.13

Future sulfur recovered by the SRU	2,137.29
Baseline LT Sulfur per year + [(0.25 LTPD sulfur * 99.9 % recovery rate at SRU) x 365 day/yr]	

Baseline SO <sub>2</sub> Emission from SRU/TGTU, lb/yr		
2014	2015	Average
1,587	3,954	2,771

Future SO <sub>2</sub> Emission from SRU/TGTU, lb/yr	
SO <sub>2</sub> emission at the SRU incinerator stack assuming 99.9% sulfur recovery rate.	3,172.33
Baseline SO <sub>2</sub> Emissions + [(Future Annual LT Sulfur Recovered - Baseline Annual LT Sulfur Recovered ) x (1-0.999) x 2204 lb/LT x 64 lb mol SO <sub>2</sub> /32 lb mol S]	

SO<sub>2</sub>  
Emission  
Change,  
ton/yr**0.20**

**Appendix B: Emission Calculations  
Storage and Loading**

**Company Name:** Countrymark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

New Tanks

Tank	Service	Configuration	Capacity	Maximum fill rate	Maximum annual throughput, maximum number of turnovers per year	Standing loss, ton/yr	Working loss, ton/yr	Fugitive component emissions, ton/yr	Total VOC (ton/yr)
1000-T400	Gasoline Product Tank	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	20,000 barrels 840,000 gallons	336,000 gallons/hour	840,000,000 gallons 1000 turnovers	1.401	1.344	0.002	2.748
New LPG Tank - No. TBD	LPG Storage	Pressure Tank	60,000 gallon	NA	NA	NA	NA	0.002	0.002
New LPG Tank - No. TBD	LPG Storage	Pressure Tank	60,000 gallon	NA	NA	NA	NA	0.002	0.002
4A	Various Service - TVP > 1.5 psia	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	5,500 barrels 231,000 gallons	535 BPH 22,470 gallons/hour	196,812,000 gallons/yr 852 turnovers	0.794	0.498	0.002	1.294
4B	Various Service - TVP > 1.5 psia	Internal Floating Roof, with primary mechanical shoe seal and rim-mounted secondary seal	5,500 barrels 231,000 gallons	535 BPH 22,470 gallons/hour	196,812,000 gallons/yr 852 turnovers	0.794	0.498	0.002	1.294

Basis

Maximum annual throughput based upon maximum fill rate @ 8,760 hour/year, unless this results in more than 1,000 turnovers per year.

Assumed number of fugitive emission components associated with each tank - 5 light liquid valves, 1 pump and 12 connectors to be added to LDAR program.

Existing Tanks

Tank	Type of tank	Average working loss VOC emission factor (lb/1000 gal)	Before Project Throughput (gallons/year)	VOC (lb/hr)	VOC (ton/yr)	After Project Throughput (gallons/year)	VOC (lb/hr)	VOC (ton/yr)
40 Internal Floating Roof Tank	Rundown	0.0020	4,397,808	0.001	0.004	4,995,678	0.001	0.005
50 Internal Floating Roof Tank	Gasoline Blending	0.0018	214,387,489	0.04	0.193	219,752,989	0.05	0.198
<b>Total:</b>				0.05	0.197		0.05	0.203

Basis

Throughput before project based upon 2014 and 2015 throughput.

Working loss VOC emission factor - average of 2014 and 2015 TANKS emission calculations

FCC Gasoline - typically routed to LSG Unit. Increased utilization estimated at 6% of 350 BPD production increase.

Alkylate - typically routed to a gasoline blending tank.

Baseline throughput based upon average annual throughput for 2014 and 2015.

**Appendix B: Emission Calculations  
Storage and Loading**

**Company Name:** Countrymark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Existing Loading Rack

	Average uncontrolled loading loss VOC emission factor (lb/1000 gal)	Overall control efficiency (Capture and Destruction), %	Before Project Throughput (gallons/year)	Before Project VOC (ton/yr)	After Project Throughput (gallons/year)	After Project VOC (ton/yr)
Gasoline Loading Rack	5.00	97.216	67,040,135	4.666	70,719,335	4.922

Basis:

Uncontrolled loading loss VOC emission factor - AP 42 Table 5.2-5

Throughput before project based upon 2014 and 2015 throughput.

Only a portion of the refinery gasoline production is loaded at the facility loading rack.

Assumed fugitive emission components for each tank

	Count	Screening Value	VOC, lb/hr	VOC, ton/yr	EPA Fugitive Emission Protocol Factor	
Light liquid and vapor valve	5					
Default - zero	5		0.0001	0.0004	7.8 x 10 <sup>-6</sup> kg/hr/source	Table 2-12
2% leaking @ 500 ppm	0	500	0.0001	0.0002	2.29 x 10 <sup>-6</sup> x SV <sup>0.746</sup> kg/hr	Table 2-10
Light liquid - Pumps	1				EPA Fugitive Emission Protocol Factor	
Default - zero	1.0	0	0.0001	0.0002	2.4 x 10 <sup>-5</sup> kg/hr/source	Table 2-12 Pumps/all service
Assume 1% leaking @ 2,000 ppm	0.01	2000	0.0001	0.0005	5.03 x 10 <sup>-5</sup> x SV <sup>0.610</sup> kg/hr	Table 2-10 Pumps/all service
Flanges (any service)	12.5				EPA Fugitive Emission Protocol Factor	
Default - zero	12		0.00001	0.0000	3.1 x 10 <sup>-7</sup> kg/hr/source	Table 2-12
2% leaking @ 500 ppm	0.3	500	0.0002	0.0009	4.61 x 10 <sup>-6</sup> x SV <sup>0.703</sup> kg/hr	Table 2-10
<b>Total</b>				<b>0.0022</b>		

**Appendix B: Emission Calculations**  
**Storage and Loading**

**Company Name:** Countrymark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

HAP emissions

	1,2,4-trimethylbenzene	2,2,4-trimethylpentane	benzene	cyclohexane	ethylbenzene	n-hexane	toluene	xylene	Total HAP
	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
New Premium Tank No.1000 T400	0.0035	0.0128	0.0041	0.0091	0.0025	0.0245	0.0198	0.0119	0.0883
New LPG Tank - No. TBD	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New LPG Tank - No. TBD	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New Tank 4A (Gasoline worst case)	0.0017	0.0060	0.0019	0.0043	0.0012	0.0115	0.0093	0.0056	0.0416
New Tank 4B (Gasoline worst case)	0.0017	0.0060	0.0019	0.0043	0.0012	0.0115	0.0093	0.0056	0.0416
Tank 40 before project			0.000004			0.000013	0.000007	0.000020	0.00004
Tank 40 after project			0.000005			0.000015	0.000008	0.000023	0.00005
Change in emissions			0.0000			0.0000	0.0000	0.0000	0.0000
Tank 50 before project		0.009		0.00001		0.00004	0.0009	0.00001	0.01015
Tank 50 after project		0.009		0.00001		0.00004	0.0010	0.00001	0.01040
Change in emissions		0.0002		3.52E-07		8.86E-07	2.33E-05	3.65E-07	0.0003
Gasoline Loading Rack before	0.0060	0.0217	0.0069	0.0154	0.0043	0.0416	0.0337	0.0202	0.1499
Gasoline Loading Rack after	0.0063	0.0229	0.0073	0.0163	0.0045	0.0439	0.0355	0.0214	0.1581
Change in emissions	0.0003	0.0012	0.0004	0.0008	0.0002	0.0023	0.0018	0.0011	0.0082

**Appendix B: Emission Calculations  
Storage and Loading**

**Company Name:** Countrymark Refining and Logistics, LLC  
**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620  
**Significant Source Modification No.:** 129-37428-00003  
**Significant Permit Modification No.:** 129-37429-00003  
**Reviewer:** Kristen Willoughby

Compound	Gasoline	Alkylate	Slop Oil	FCC Gasoline
	vapor mass fraction			
1,2,4-trimethylbenzene	0.001			
2,2,4-trimethylpentane	0.005	0.0475		
benzene	0.001		0.004	0.001
cyclohexane	0.003	0.0001		
ethylbenzene	0.001		0.004	
n-hexane	0.009	0.0002	0.148	0.003
toluene	0.007	0.0048	0.022	0.002
xylene	0.004	0.0001	0.020	0.005

HAP Basis

New Premium Tank No.TBD - Gasoline speciation based on analysis.

New LPG Tank - No. TBD - NA, tank stores petroleum gases such as butane.

New LPG Tank - No. TBD - NA, tank stores petroleum gases such as butane.

New Tank 4A (Gasoline worst case) - Gasoline speciation based on analysis.

New Tank 4B (Gasoline worst case) - Gasoline speciation based on analysis.

Tank 40 - FCC Gasoline

Tank 50 - Alkylate. The tank stores a mixture of gasoline blending streams. HAP emissions are based on the increase in alkylate to the tank.

Gasoline Loading Rack - Gasoline speciation based on analysis.

**Appendix B: Emission Calculations****Cooling Tower****Company Name:** Countrymark Refining and Logistics, LLC**Address City IN Zip:** 1200 Refinery Road, Mount Vernon, IN 47620**Significant Source Modification No.:** 129-37428-00003**Significant Permit Modification No.:** 129-37429-00003**Reviewer:** Kristen Willoughby**Cooling Tower #1N&S (Combined) Increased circulation will be divided between the two cooling towers.**

Permitted Circulation Max Rate	6,100.00	gpm
Baseline Circulation Rate (Actuals)	6,100.00	gpm
Circulation Rate After Project	6,600.00	gpm
Average VOC em. rate from Subpart CC testing	0.198	lb/hr
Average TDS in circulating cooling water	1,950.00	mg/l
PM/PM10/PM2.5 emission factor	0.003	lb/1000 gal

PTE of Cooling Tower #5	PM/PM10/PM2.5 (lb/hr)	PM/PM10/PM2.5 (ton/yr)	VOC (lb/hr)	VOC (ton/yr)
Permitted PTE	1.13	4.95	0.20	0.87
Baseline Rate (Actuals) Emissions	1.13	4.95	0.20	0.87
PTE/Project Actual After Project	1.22	5.36	0.21	0.94

**Notes:**

Ratio of AP-42 factor of 0.019 lb/Mgal @ 12,000 ppm TDS. Assumes total liquid drift is 0.02 % of total liquid flow (AP-42 Table 13.4-1).

Baseline circulation rate - average 2014-2015

**Appendix B: Emission Calculations**  
**Sats Gas Unit and Alkylation Unit Tower**  
**Company Name: Countrymark Refining and Logistics, LLC**  
**Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620**  
**Significant Source Modification No.: 129-37428-00003**  
**Significant Permit Modification No.: 129-37429-00003**  
**Reviewer: Kristen Willoughby**

Sat Gas Plant Fugitive Emission Components

	Count	Screening Value	VOC, lb/hr	VOC, ton/yr		
Light liquid and vapor valve	950				EPA Fugitive Emission Protocol Factor	
default - zero	931		0.0160	0.0701	7.8 x 10 <sup>-6</sup> kg/hr/source	Table 2-12
2% leaking @ 500 ppm	19	500	0.0099	0.0433	2.29 x 10 <sup>-6</sup> x SV <sup>0.746</sup> kg/hr	Table 2-10
Heavy liquid valve	50				EPA Fugitive Emission Protocol Factor	
default - zero	49		0.0008	0.0037	7.8 x 10 <sup>-6</sup> kg/hr/source	Table 2-12
2% leaking @ 500 ppm	1	500	0.0005	0.0023	2.29 x 10 <sup>-6</sup> x SV <sup>0.746</sup> kg/hr	Table 2-10
Light liquid - Pumps	10				EPA Fugitive Emission Protocol Factor	
Default - zero	9.9	0	0.0005	0.0023	2.4 x 10 <sup>-5</sup> kg/hr/source	Table 2-12 Pumps/all service
Assume 1% leaking @ 2,000 ppm	0.1	2000	0.0011	0.0050	5.03 x 10 <sup>-5</sup> x SV <sup>0.610</sup> kg/hr	Table 2-10 Pumps/all service
Flanges (any service)	2500				EPA Fugitive Emission Protocol Factor	
default - zero	2450		0.00167	0.0073	3.1 x 10 <sup>-7</sup> kg/hr/source	Table 2-12
2% leaking @ 500 ppm	50	500	0.0401	0.1757	4.61 x 10 <sup>-6</sup> x SV <sup>0.703</sup> kg/hr	Table 2-10
Compressors ("Other")	1				EPA Fugitive Emission Protocol Factor	
default - zero	0.98		0.00001	0.00004	4.0 x 10 <sup>-6</sup> kg/hr/source	Table 2-12
2% leaking @ 10000 ppm	0.02	10000	0.0001	0.0006	1.36 x 10 <sup>-5</sup> x SV <sup>0.589</sup> kg/hr	Table 2-10

**Total 0.3104**

1,2,4-trimethylbenzene	2,2,4-trimethylpentane	benzene	cyclohexane	ethylbenzene	n-hexane	toluene	xylene	Total HAP
ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
0.0001	0.0002	0.0002	0.0004	0.0001	0.0009	0.0005	0.0006	0.0030

0.1760

HAP emission estimate basis:

2/3 of the unit is assumed to have no HAP emissions since the equipment is in propane/butane service. 1/3 of the unit is assumed to be in a service that has HAP emissions. An average of naphtha and gasoline stream analysis was utilized to determine the vapor mass fraction as an estimate of HAP emissions.



# Appendix B: Emission Calculations

## Sats Gas Unit and Alkylation Unit Tower

Company Name: Countrymark Refining and Logistics, LLC

Address City IN Zip: 1200 Refinery Road, Mount Vernon, IN 47620

Significant Source Modification No.: 129-37428-00003

Significant Permit Modification No.: 129-37429-00003

Reviewer: Kristen Willoughby

### Sat Gas Plant Fugitive Emission Components

### Alkylation Unit Iso stripper Tower

	Count	Screening Value	VOC, lb/hr	VOC, ton/yr	EPA Fugitive Emission Protocol Factor	
Light liquid and vapor valve	190					
default - zero	186		0.0032	0.0140	7.8 x 10-6 kg/hr/source	Table 2-12
2% leaking @ 500 ppm	4	500	0.0020	0.0087	2.29 x 10-6 x SV^0.746 kg/hr	Table 2-10
Heavy liquid valve	10					
default - zero	10		0.0002	0.0007	7.8 x 10-6 kg/hr/source	Table 2-12
2% leaking @ 500 ppm	0	500	0.0001	0.0005	2.29 x 10-6 x SV^0.746 kg/hr	Table 2-10
Light liquid - Pumps	0					
Default - zero	0.0	0	0.0000	0.0000	2.4 x 10-5 kg/hr/source	Table 2-12 Pumps/all service
Assume 1% leaking @ 2,000 ppm	0.0	2000	0.0000	0.0000	5.03 x 10-5 x SV^0.610 kg/hr	Table 2-10 Pumps/all service
Flanges (any service)	500					
default - zero	490		0.00033	0.0015	3.1 x 10-7 kg/hr/source	Table 2-12
2% leaking @ 500 ppm	10	500	0.0080	0.0351	4.61 x 10-6 x SV^0.703 kg/hr	Table 2-10

**Total 0.0605**

1,2,4-trimethylbenzene	2,2,4-trimethylpentane	benzene	cyclohexane	ethylbenzene	n-hexane	toluene	xylene	Total HAP
ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
	0.0014		0.000002		0.000006	0.00015	0.000002	0.0016

HAP emission estimate basis:

1/2 of the components are assumed to have no HAP emissions since the equipment is in propane/isobutane service. 1/2 of the unit is assumed to be in a service that has HAP emissions. Alkylate stream analysis was utilized to determine the vapor mass fraction as an estimate of HAP emissions.

Compound	Naphtha vapor mass fraction	Gasoline vapor mass fraction	Average vapor mass fraction	Alkylate vapor mass fraction	Slop Oil vapor mass fraction
1,2,4-trimethylbenzene		0.001	0.001		
2,2,4-trimethylpentane	0.000	0.005	0.002	0.0475	
benzene		0.001	0.001		0.004
cyclohexane	0.004	0.003	0.004	0.0001	
ethylbenzene	0.000	0.001	0.001		0.004
n-hexane		0.009	0.009	0.0002	0.148
toluene	0.003	0.007	0.005	0.0048	0.022
xylene	0.006	0.004	0.005	0.0001	0.020



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

October 26, 2016

Jim Pankey  
CountryMark Refining and Logistics, LLC  
1200 Refinery Road  
Mount Vernon, IN 47620

Re: Public Notice  
CountryMark Refining and Logistics, LLC  
Permit Level: Title V - Significant Source Modification & Title V - Significant Permit Modification  
Permit Number: 129 - 37428 - 00003 & 129 - 37429 - 00003

Dear Jim Pankey:

Enclosed is a copy of your draft Title V - Significant Source Modification & Title V - Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Mount Vernon Democrat in Mount Vernon, Indiana publish the abbreviated version of the public notice no later than November 2, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Alexandrian Public Library, 115 West 5th in Mt. Vernon IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Kristen Willoughby, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-3031 or dial (317) 233-3031.

Sincerely,  
*Len Pogost*

Len Pogost  
Permits Branch  
Office of Air Quality

Enclosures  
PN Applicant Cover letter 2/17/2016



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Commissioner

## **ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING**

October 26, 2016

Mount Vernon Democrat  
Attn: Classifieds  
P.O. Box 767  
Mount Vernon, Indiana 47620

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for CountryMark Refining and Logistics, LLC, Posey County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than November 2, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Len Pogost at 800-451-6027 and ask for extension 3-2803 or dial 317-233-2803.

Sincerely,

*Len Pogost*

Len Pogost  
Permit Branch  
Office of Air Quality

Permit Level: Title V - Significant Source Modification & Title V - Significant Permit Modification  
Permit Number: 129 - 37428 - 00003 & 129 - 37429 - 00003

Enclosure  
PN Newspaper.dot 6/13/2013



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Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

October 26, 2016

To: Alexandrian Public Library 115 West 5th Mt. Vernon IN

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

**Applicant Name: CountryMark Refining and Logistics, LLC**  
**Permit Number: 129 - 37428 - 00003 & 129 - 37429 - 00003**

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures  
PN Library.dot 2/16/2016



# Indiana Department of Environmental Management

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

## Notice of Public Comment

**October 26, 2016**

**CountryMark Refining and Logistics, LLC**

**129 - 37428 - 00003 & 129 - 37429 - 00003**

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

**Please Note:** *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV). If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure  
PN AAA Cover.dot 2/17/2016



## Indiana Department of Environmental Management

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

### **AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT**

October 26, 2016

A 30-day public comment period has been initiated for:

**Permit Number:** 129 - 37428 - 00003 & 129 - 37429 - 00003  
**Applicant Name:** CountryMark Refining and Logistics, LLC  
**Location:** Mount Vernon, Posey County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:

<http://www.in.gov/ai/appfiles/idem-caats/>


Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management  
Office of Air Quality, Permits Branch  
100 North Senate Avenue  
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at [chammack@idem.IN.gov](mailto:chammack@idem.IN.gov) or (317) 233-2414.

Affected States Notification.dot 2/17/2016

# Mail Code 61-53

IDEM Staff	LPOGOST 10/26/2016 Countrymark Refining 129 - 37428 - 00003 & 129 - 37429 - 00003 draft		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Jim Pankey Countrymark Refining and Logistics LLC 1200 Refinery Road Mount Vernon IN 47620 (Source CAATS)										
2		Sam Nicotra Operations Manager Countrymark Refining and Logistics LLC 1200 Refinery Road Mount Vernon IN 47620 (RO CAATS)										
3		Ms. Patricia Sorensen Environmental Resources Management (ERM) 8425 Woodfield Crossing Blvd, Suite 560-W Indianapolis IN 46240 (Consultant)										
4		Posey County Commissioners County Courthouse, 126 E. 3rd Street Mount Vernon IN 47620 (Local Official)										
5		Posey County Health Department 126 E. 3rd St, Coliseum Bldg Mount Vernon IN 47620-1811 (Health Department)										
6		Mount Vernon City Council and Mayors Office 520 Main Street Mount Vernon IN 47620 (Local Official)										
7		Dr. Jeff Seyler Univ. of So Ind., 8600 Univ. Blvd. Evansville IN 47712 (Affected Party)										
8		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 (Affected Party)										
9		Alexandrian Public Library 115 West 5th Mt. Vernon IN 47620 (Library)										
10		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
11		Mrs. Connie Parkinson 510 Western Hills Dr. Mt. Vernon IN 47620 (Affected Party)										
12		Robert Hess c/o Mellon Corporation 830 Post Road East, Suite 105 Westport CT 06880 (Affected Party)										
13		Juanita Burton 7911 W. Franklin Road Evansville IN 47712 (Affected Party)										
14		David Boggs 216 Western Hills Dr Mt Vernon IN 47620 (Affected Party)										
15		John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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