BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

MARATHON PETROLEUM COMPANY, LP Flare System Modifications	))	
	)	PCB 17-
	)	(Tax Certification - Air)
PROPERTY IDENTIFICATION NUMBER 05-1-34-000-021-000 or portion thereof	))	

NOTICE

TO: [*Electronic filing*]
Don Brown, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601

[*Service by mail*]
Kevin D. Bogard
Marathon Petroleum Company, LP
400 South Marathon Avenue
Robinson, Illinois 62454

[*Service by mail*]
Steve Santarelli
Illinois Department of Revenue
101 West Jefferson Avenue
P.O. Box 19033
Springfield, Illinois 62794

PLEASE TAKE NOTICE that I have today filed electronically the **APPEARANCE** and **RECOMMENDATION** of the Illinois Environmental Protection Agency, a paper copy of which is herewith served upon the applicant and a representative of the Illinois Department of Revenue.

Respectfully submitted by,

/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

Date: January 26, 2017

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276
Telephone: (217) 524-9137

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

MARATHON PETROLEUM COMPANY, LP Flare System Modifications	))	
	)	PCB 17-
	)	(Tax Certification - Air)
PROPERTY IDENTIFICATION NUMBER 05-1-34-000-021-000 or portion thereof	))	

APPEARANCE

I hereby file my Appearance in this proceeding on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted by,

/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

Date: January 26, 2017

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
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MARATHON PETROLEUM COMPANY, LP Flare System Modifications	)	
	)	PCB 17-
	)	(Tax Certification - Air)
PROPERTY IDENTIFICATION NUMBER 05-1-34-000-021-000 or portion thereof	)	

RECOMMENDATION

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), through its attorneys, and pursuant to 35 Ill. Adm. Code 125.204 of the ILLINOIS POLLUTION CONTROL BOARD'S ("Board") procedural regulations, files the Illinois EPA's Recommendation in the above-referenced request for tax certification of pollution control facilities. The Illinois EPA recommends an **issuance** of a tax certification covering the subject matter of the request. In support thereof, the Illinois EPA states as follows:

1. On or about September 15, 2016, the Illinois EPA received an application and supporting information from Marathon Petroleum Company, LP ("Marathon") concerning the proposed tax certification of certain air emission sources and/or equipment located at its Robinson petroleum refinery in Crawford County, Illinois. The application was provided on up-dated tax certification forms, thus replacing an earlier submission to the Illinois EPA from two years before. A copy of the application, including the incorporated attachments, is attached hereto. **[Exhibit A]**.

2. The applicant's principal business and facility address is as follows:

Marathon Petroleum Company, LP
400 South Marathon Avenue
Robinson, Illinois 62454

3. The subject matter of this request consists of modifications to six existing flare systems operating at the refinery to enhance and improve flare performance. More specifically,

the Flare System Modification project involved modifications to six refinery flares, designated 84F-1, 84F-2, 84F-3, 84F-104, 84F-5 and 84F-6, designed to support the increased use of supplemental natural gas so as to allow for "better management operation of the flares for effective destruction of flared gas." *Exhibit A* at Attachment A, third paragraph. The modifications primarily consisted of "operational control systems" (i.e., staged steam control valves, flare supplemental gas controls and automated steam controls), as well as additional "instrumentation" (i.e., on-line gas chromatographs, flare gas flow meters, and stream meters). *Id.*

4. As described in the application, staged flare supplemental gas controls and piping were added to maintain a minimum heating value of the flare gas. *See,* Exhibit A, Attachment A. As steam is commonly used in flaring systems to reduce smoking, automated steam control valves were installed to provide for a "full-range" of steam control. *Id.* A Minimum Steam Reduction System (MSRS) was specifically developed by Marathon to provide the flare burner tip with adequate cooling and improved combustion control during periods of low flare gas flow rates. *Id.* This was accomplished with the installation of a system consisting of a steam/air eductor, which pulls in air to mix with the steam flow, and a steam heater, which heats the steam/air mixture. *Id.* These features assured that the refinery would possess an operational ability to improve the combustion efficiency of the flares at periods when operating at lower, heat-value rates.

5. Added instrumentation to the flare system included an on-line gas chromatograph designed to monitor the composition and heating value of the flare gas. *Id.* An ultrasonic flare gas flow meter to monitor the flare tip's mass flow and molecular weight, and an ultrasonic steam meter to measure the flare tip's total steam flow, were also installed. *Id.*

6. Pollution control facilities are entitled to preferential tax treatment, as provided by 35 ILCS 200/11-5 (2002).

7. Section 11-10 of the Property Tax Code, 35 ILCS 200/11-10 (2002), defines "pollution control facilities" as:

> "any system, method, construction, device or appliance appurtenant thereto, or any portion of any building or equipment, that is designed, constructed, installed or operated for the primary purpose of: (a) eliminating, preventing, or reducing air or water pollution... or (b) treating, pretreating, modifying or disposing of any potential solid, liquid, gaseous pollutant which if released without treatment, pretreatment, modification or disposal might be harmful, detrimental or offensive to human, plant or animal life, or to property."

This definition is broad on its face[1], consistent with a legislative intent to promote a wide array of environmental improvements and reduce the financial expenditures by those who are making the improvements.[2] Here, the subject equipment is comprised of components of a traditional, end-of-the-pipe control system and therefore falls within the definition of a pollution control facility.

8. The foremost limiting factor in the definition is the primary purpose test. Some recent tax certification requests involving air pollution control facilities have highlighted the primary purpose test, which courts have held "seeks to determine the function and ultimate objective" of the subject equipment.[3] In this instance, the Flare System Modifications project appear to be primarily designed to improve combustion control of the flares during periods of

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[1] *See, Beelman Truck Company v. Cosentino,* 624 N.E.2d 454, 456 (5th Dist. App. Ct. 1993. *See also,* Cite to Massachusett's case?

[2] *See supra, Beelman Truck Company v. Cosentino* (legislature's intent when adopting pollution control facility definition in Use Tax Act was "intended to encourage diverse means for reducing pollution"), *citing, Columbia Quarry Co. v. Department of Revenue,* 506 N.E.2d 795 (1987); *see also, Illinois Cereal Mills, Inc., v. Department of Revenue,* 346 N.E.2d 69, 71 (4th Dist. App. Ct. 1976).

[3] *See, Beelman Truck Company v. Cosentino,* 624 N.E.2d at 457, *citing, Shred Pax Corp. v. Department of Revenue,* 559 N.E.2d 492, 494 (Ill. App. Ct. 1st Dist.) and *Illinois Cereal Mills, Inc., v. Department of Revenue* at 71.

low flare gas rates, thus reducing or preventing volatile organic material emissions from the atmosphere.[4]

9. Based on information in the application, it is the Illinois EPA's engineering judgment that the Flare System Modification project contemplated the reduction and/or prevention of air pollution as its primary purpose and therefore may be considered as "pollution control facilities" in accordance with the statutory definition and consistent with the Board's regulations at 35 Ill. Adm. Code 125.200. **[Exhibit B]**.

10. It can also be noted that the modifications to the flare system were undertaken by the refinery and permitted by the Illinois EPA as an emissions control project designed to reduce emissions from the existing flares. **[Exhibit C]**. The permit expressly acknowledged that the project was aimed at reducing or preventing air emissions through improvements to the flare system.

11. Moreover, analogous projects have been approved by the Board in prior tax certification proceedings. The installation of a stand-alone flare system was approved by the Board in 2002.[5] Closely analogous to the facts in this matter, the Board approved a project in 2012 aimed at improving the performance and destruction efficiency of an existing flare system, thereby enabling the applicant to comply with New Source Performance Standards found at 40 CFR Part 60, Subpart Ja, for petroleum refineries.[6]

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[4] *Compare, Central Illinois Light Co. v. Department of Revenue,* 784 N.E.2d 442, 446-447 (3rd Dist. App. Ct. 2003)(explaining that the primary purpose of the trucks involved in the *Beelman* decision "was to reduce, control and prevent pollution by *actually removing pollution*"(emphasis added)).

[5] *See, Aux Sable Liquid Products v. Illinois EPA,* PCB No. 02-126 (March 21, 2002)(approving flare system designed to extinguish volatile organic material emissions).

[6] *See, WRB Refining, LLC, v. Illinois EPA,* PCB No. 12-81 (February 2, 2012)(approving installation of flow meters, composition analyzers and associated piping and instrumentation to flare systems serving various refinery operations).

12. For the reasons mentioned above, the Illinois EPA recommends that the Board **grant** tax certification of the applicant's request.

Respectfully submitted by,

/s/ Robb H. Layman

Robb H. Layman
Assistant Counsel

Date: January 26, 2017

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: (217) 524-9137

CERTIFICATE OF SERVICE

I hereby certify that on the 26th day of January, 2017, I electronically filed the following instruments, entitled **NOTICE, APPEARANCE** and **RECOMMENDATION,** with:

Don Brown, Clerk
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

and, further, that on the same date I did send a true and correct paper copy of the same foregoing instruments, by First Class Mail with postage thereon fully paid and deposited into the possession of the United States Postal Service, to:

Steve Santarelli
Illinois Department of Revenue
101 West Jefferson Avenue
P.O. Box 19033
Springfield, Illinois 62794

Kevin D. Bogard
Marathon Petroleum Company, LP
400 South Marathon Avenue
Robinson, Illinois 62454

/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

Marathon Petroleum Company LP

539 South Main Street
Findlay, OH 45840-3295

September 15, 2016

Ray E. Pilapil, Permit Section
Division of Air Pollution Control
1021 North Grand Avenue East
PO BOX 19276
Springfield, IL 62794-9276

Re: Marathon Petroleum Company Pollution Control 2014 Applications
Project Descriptions: Subpart Ja Flare Instrumentation, WWTP Reliability and Capacity Increase, Flare Header Flowmeters

To Whom It May Concern:

Enclosed for your consideration are three resubmissions of the Illinois Application for Certification of a Pollution Control facility. The original submissions mailed via certified mail on November 20, 2014 were originally filed on the old form dated 08/2000. It has come to our attention that a resubmission on the new form would be the most efficient way to expedite the applications through the process. All the original attachments are applicable with no changes.

Please contact me if you have questions or need any additional information. My email is cagillum@marathonpetroleum.com and my phone number is 419-421-2128.

Sincerely,

Cheri Gillum
Tax Specialist/ Pollution Control Coordinator

cc: Cindy Stechschulte

— Exhibit A —

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Application for Certification (Property Tax Treatment)
Pollution Control Facility

FOR AGENCY USE ONLY			
File Number:		Date Rec'd:	
Certification Number:		Date:	

Facility Type (check one): ☑ Air ☐ Water

This form is to be used for any application for certification of property tax treatment for a pollution control facility for air or water from the Illinois EPA. Separate applications must be completed for each control facility claimed. Do not mix types (air and water). Where both air and water operations are related, file two applications.

If attachments are needed, record them consecutively on an index sheet.

You may complete this form online, save a copy locally, print, sign and submit it to:

Illinois EPA
Attention: Ray E. Pilapil, Permit Section
Division of Air Pollution Control
1021 North Grand Avenue East, P.O. Box 19276
Springfield, IL 62794-9276

I. Applicant Information:

Company Name: Marathon Petroleum Company LP

Person Authorized to Receive Certification	Kevin D. Bogard	Person to Contact for Additional Details	Susan J. Hawkins
Street Address:	400 S. Marathon Avenue	Street Address:	400 S. Marathon Avenue
City:	Robinson State: IL	City:	Robinson State: IL
Zip:	62454 Phone: 618-544-2121	Zip:	62454 Phone: 618-544-2121
Email Address:	KDBogard@MarathonPetroleum.com	Email Address:	SJHawkins@MarathonPetroleum.com

II. Facility Information:

Facility Location: Quarter Section: _____ Township: Robins Range: _____

Municipality: Robinson Township: Robins

Note: A plat map location is requested for facilities located outside of municipal boundaries.

Address: Inside Municipal Boundaries- Parcel 1202100001 City: Crawford

State: IL Zip Code: 62454 County: Crawford Book Number: _____

Property Index Number: 05134000021000

Note: The Property Index Number is the numerical reference used to identify a parcel of real property for assessment and taxation purposes.

Manufacturing Operations Information:

Nature of Operations Conducted at the Above Location:

Petroleum Refining

Permit Information:

WPC Construction Permit Number:	N/A	Date Issued: N/A	
NPDES Permit Number:	IL0004073- Renewal Filed	Date Issued: 09/30/2009	Exp. Date: 9/30/2014
APC Construction Permit Number:	10020043	Date Issued: Feb 22, 2010	
APC Operating Permit Number:	96010007(Title V Permit)	Date Issued: 11/23/2003	Exp. Date: N/A

Note: Submit copies of all relevant permits issued by local pollution control agencies. (e.g. MSD Construction Permit)

IL 532-0222
APC 151 9/2014

This Agency is authorized to request this information under 415 ILCS 5/4(b)(2012). Disclosure of this information is voluntary and no penalties will result from the failure to provide the information. However, the absence of the information could prevent your application from being processed or could result in denial of your application.

Manufacturing Process Information:
Please provide information on the manufacturing process and materials on which pollution control facility is used, including each major piece of equipment associated with the pollution control facility (or low sulfur dioxide emission coal fueled device).
Description of the Process:

All refinery flares serve as safety devices as well as control devices for the combustion of waste streams from normal refinery operations. Flare systems are subject to the EPA's NSPS and MACT standards which require 98% combustion efficiency.

Materials Used in the Process:

Newly installed instrumentation which includes on-line gas chromatographs, ultrasonic flare gas flow meters, ultrasonic steam meters, staged steam control valves, supplemental gas control and piping and controls systme to control steam to hydrocarbon ratio.

Pollution Control Facility Information:
Please provide a narrative description of the pollution control facility (or low sulfur dioxide emission coal fueled device), and an explanation of why its primary purpose is to eliminate, prevent or reduce pollution. State the type of control facility, as well as a narrative description and a process flow diagram describing the pollution control facility. Include an average analysis of the influent and effluent of the control facility stating the collection efficiency, if applicable.

Describe the Pollution Control Facility (or Low Sulfur Dioxide Emission Coal Fueled Device):

See Attached "A"

Describe the Primary Purpose of the Pollution Control Facility (or Low Sulfur Dioxide Emission Coal Fueled Device):

See Attached "A"

Identify the statute or regulation (federal or state), or local ordinance, if any, requiring the installation of the subject pollution control facility (or low sulfur dioxide emission coal fueled device).

NPDES Permit

Nature of Contaminants or Pollutants:
List air contaminants or water pollution substances released as effluents to the manufacturing processes. Also list the final disposal of any contaminants removed from the manufacturing processes.

	Material Retained, Captured or Recovered	
Contaminant or Pollutant	Description	Disposal or Use
Volatile organic Compounds	Pollutant	Incinerated- captured in flare
Nitrogen Oxide	Pollutant	Incinerated-captured in flare
Hydrogen Sulfide	Pollutant	Incinerated-captured in flare
Carbon Monoxide	Pollutant	Incinerated-captured in flare

Note: Contaminant or pollutant means that which is removed from the process by the pollution control facility.

Point(s) of Waste Water Discharge:

Identify the location of the discharge to the receiving stream. This will typically refer to a source of water pollution but can include water-carried wastes from air pollution control facilities.

Plans and Specifications Attached ☐ Yes ☒ No

Submit Drawings, which clearly show:
(a) Point(s) of discharge to receiving stream; and
(b) Sewers and process piping to and from the control facility.

Are contaminants (or residues) collected by the control facility? ☑ Yes ☐ No

Note: If the collected contaminants are disposed of other than as wastes, state the disposition of the materials, and the value dollars reclaimed by the sale or reuse of the collected substances. State the cost of reclamation and related expense.

Project Status:

Date Installation Completed: October 31, 2013

Provide the date the pollution control facility was first placed into service and operated. If not, explain.

October 31, 2013

Status of installation on date of application:

Complete

III. Verification and Signature:

The following information is submitted in accordance with the Illinois Property Tax Code, as amended, and to the best of my knowledge is true and correct.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Kevin D. Bogard
Printed Name:

Refining General Manager, Robinson
Title:

For incorporated entities, signature should be from an authorized corporate representative.

Signature:

9-14-16
Date:

Attachment "A"

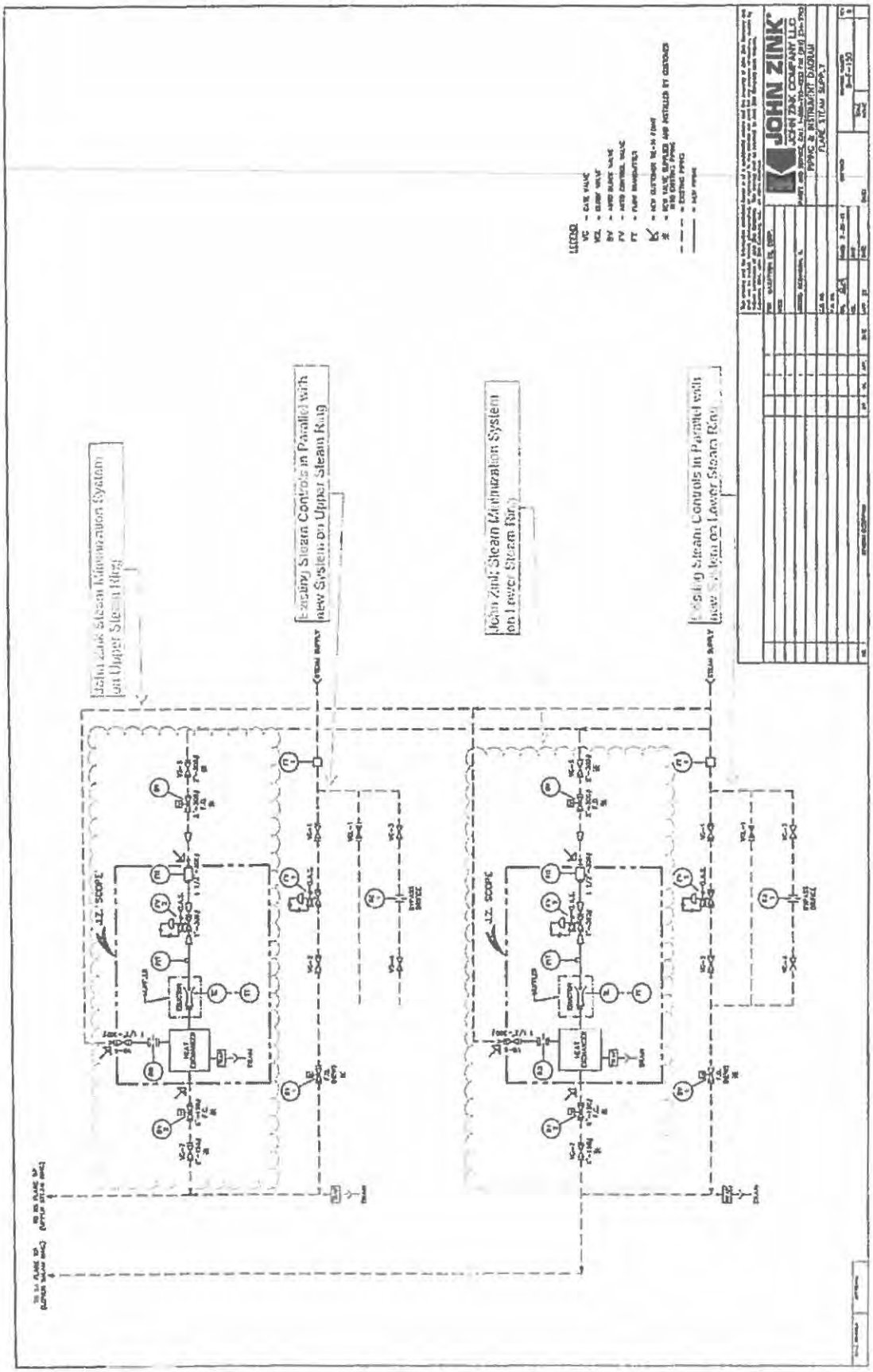
All refinery flares serve as safety devices as well as control devices for the combustion of waste streams from normal refinery operations. As regulatory control devices, flare systems are subject to the EPA's New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards which require flares to operate with 98% combustion efficiency.

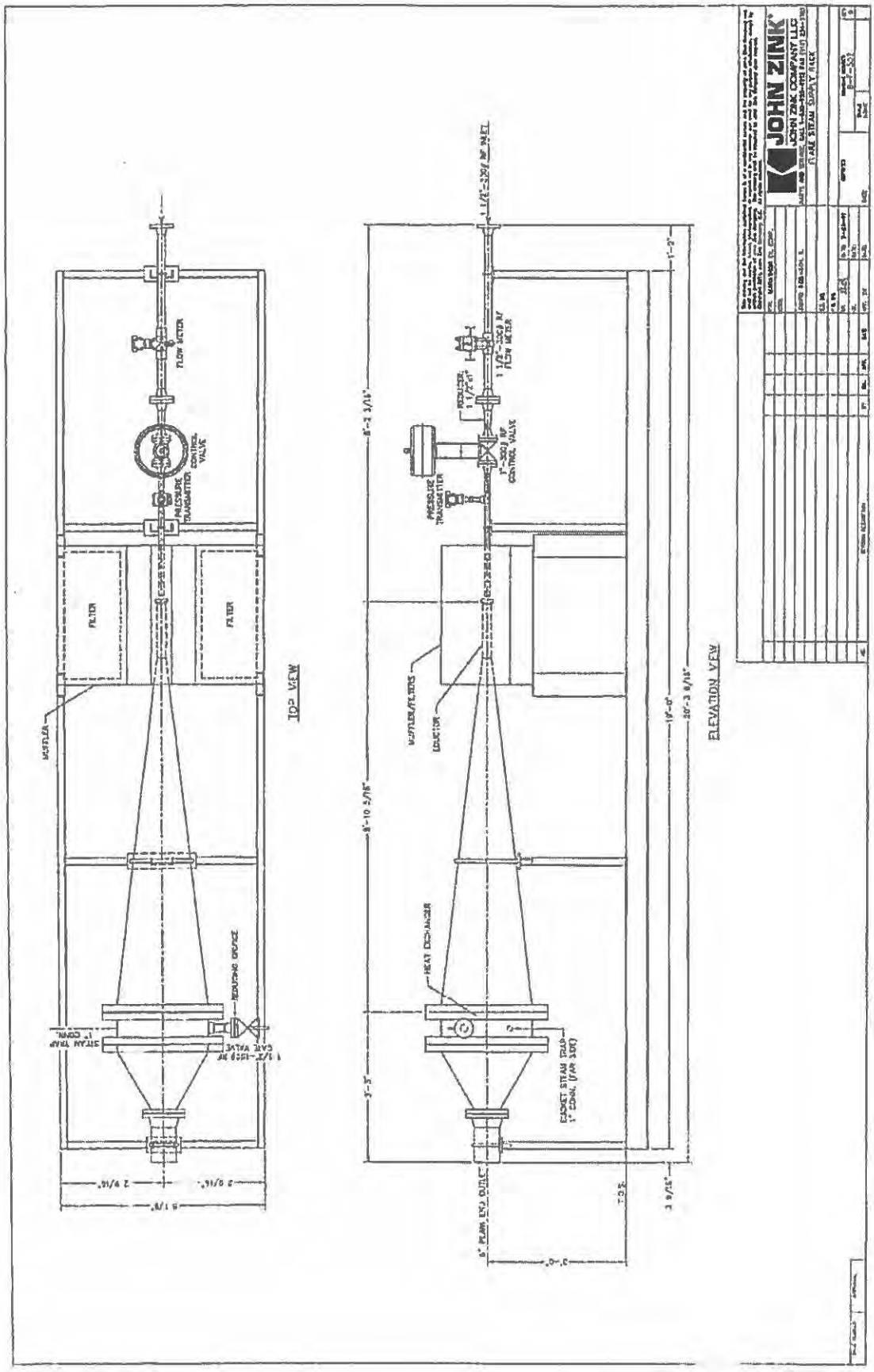
MPC has installed instrument and control systems on refinery flares. This system consists of:

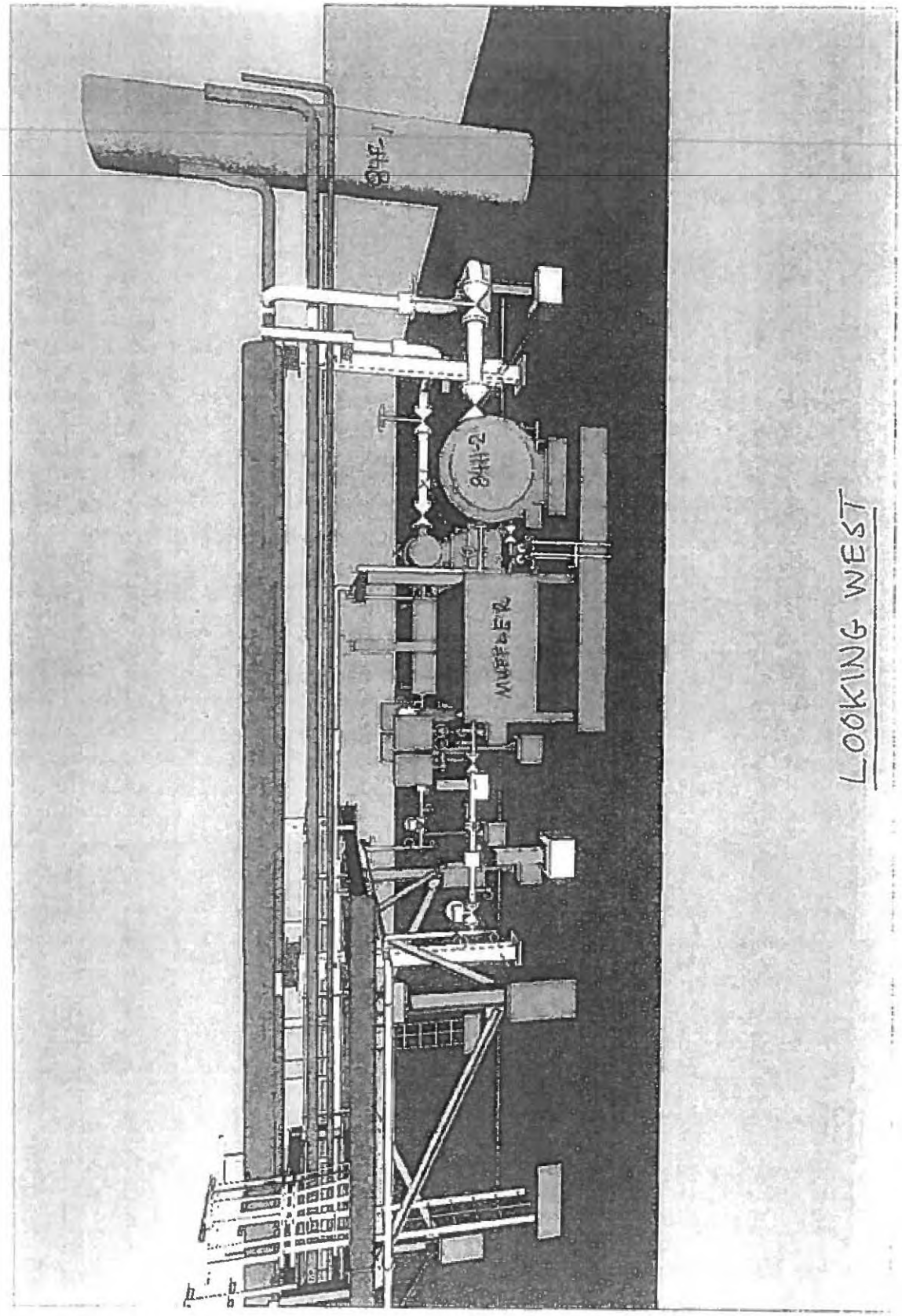
- An on-line gas chromatographs (GC) to measure the flare gas composition and heating value.
- An ultrasonic flare gas flow meter to measure the flare gas mass flow and molecular weight.
- An ultrasonic steam meter to measure the total steam flow to the flare tip.
- Staged steam control valves to provide full-range steam control.
- Flare supplemental gas controls and piping to maintain the flare gas minimum heating value.
- A controls system to control the steam to hydrocarbon ratio to prevent over-steaming and smoking.

Marathon made changes to six existing flares, 84F-1, 84F-2, 84F-3, 84F-4 (now 84F-104), 84F-5 and 84F-6 to enable an increase in the use of the supplemental natural gas for the purpose of improving flare performance. Marathon installed additional instrumentation (on-line gas chromatographs, flare gas flow meters, and steam meters) and additional operational control systems (staged steam control valves, flare supplemental gas controls, and automated steam controls), which allowed better management operation of the flares for effective destruction of flared gas.

To improve flare combustion efficiency at low flare gas rates, John Zink developed a new MSRS that consists of a steam/air eductor and steam heater for steam/air mixture. The system was installed in parallel with the existing steam controls for each flare steam ring at the 1,5,6 Flare Header. At low flare gas flow rates, the system will pass steam through an eductor, pull in air, and then heat the air/ steam mixture in the steam heater to provide the tip with adequate cooling and better combustion control. The lower steam rate will have less of a quenching effect on the combustion zone net heating value, while using air to make up for the lost cooling. When the flare gas flow increases to the point that the steam/flare gas ratio controller requires steam rates beyond the capacity of the MSRS, the system will be automatically isolated, and the conventional steam controls will activate.


JOHN ZINK
JOHN ZINK COMPANY LLC
PIPING & INSTRUMENT DIAGRAM
FLARE STEAM SUPPLY
LEGEND
VC - GATE VALVE
VCL - GLOBE VALVE
BV - HAND BLOCK VALVE
FV - HAND CONTROL VALVE
FT - FLOW TRANSMITTER
- EXISTING PIPING
- NEW PIPING
Existing Steam Controls in Parallel with new System on Upper Steam Ring
John Zink Steam Manipulation System on Upper Steam Ring
John Zink Steam Manipulation System on Lower Steam Ring
Existing Steam Controls in Parallel with new System on Lower Steam Ring
STEAM SUPPLY
JZ SCOPE
HEAT EXCHANGER
DRAIN


JOHN ZINK
JOHN ZINK COMPANY LLC
FLARE STEAM SUPPLY PACK
TOP VIEW
ELEVATION VIEW
FLOW METER
PRESSURE TRANSMITTER
CONTROL VALVE
FILTER
FILTER
HEAT EXCHANGER
REDUCING ORIFICE
STEAM TRAP
GATE VALVE
BASKET STRAINER
8" FLARE GAS DUCT


LOOKING WEST

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276•(217)782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, ACTING DIRECTOR

Memorandum
Technical Recommendation for Tax Certification Approval

Date: January 11, 2017

To: Robb Layman, Assistant Counsel

From: Raymond E. Pilapil, Manager, Permits Section REP/RnB

Subject: Marathon Petroleum Company, LP
Flare System Modifications (84F-1 through 84F-6)

Your technical staff recently received a request on or about September 28, 2016, from Marathon Petroleum Company, LP (Marathon) for an Illinois EPA recommendation regarding tax certification of air pollution control facilities pursuant to 35 Ill. Adm. Code 125.204. In order to expedite review of the project contemporaneous with the development of a formal recommendation to the Pollution Control Board, the following recommendation has been jointly prepared by your staff and the Division of Legal Counsel:

The air pollution control facilities in this request include the following:

> Flare systems modifications consisting of the installation of operational components and instrumentation to six existing refinery flares, designated 84F-1, 84F-2, 84F-3, 84F-4 (now 84F-104), 84F-5 and 84F-6. The project utilized an increase in the use of supplemental natural gas to improve the management in the operation of the flares for effective destruction of the flared hydrocarbons, thereby reducing or preventing emissions of hydrocarbons that might otherwise be emitted to the atmosphere. Because the primary purpose of this system can be attributed to the reduction or prevention of air pollution, it can be certified as a pollution control facility.

This facility is located at 400 South Marathon Avenue, Robinson.
The property identification number is Part of 05-1-34-000-021-000.

Based on the information included in this submittal, it is your staff's engineering judgment that the flare system modifications may be considered "Pollution Control Facilities" under 35 IAC 125.200(a), with the primary purpose of eliminating, preventing, or reducing air pollution, or as otherwise provided in this section of the Board's regulations. Accordingly, the Illinois EPA will recommend that the Board issue the requested tax certification.

— Exhibit B —

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19506, Springfield, IL 62794-9506 (217) 782-2113

PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

RECEIVED
MAY 21
DIVISION MANAGER
ILLINOIS REFINING DIV.

12/725-1/C

CONSTRUCTION PERMIT - REVISED
HSPS SOURCE

PERMITTEE

Marathon Petroleum Company LP
Attn: Ray Brooks, Deputy Assistant Secretary
100 Marathon Avenue
Robinson, Illinois 62454

Application No.: 10020043
Applicant's Designation:
I.D. No.: 033803AAB
Date Received: May 8, 2012
Subject: Supplemental Natural Gas for Existing Flares
Date Issued: June 15, 2012
Location: 100 Marathon Avenue, Robinson

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of changes to six existing flares to improve performance, including provisions for use of additional supplemental natural gas and additional instrumentation, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Authorization

a. i. This permit authorizes changes to six existing flares, 84F-1, 84F-2, 84F-3, 84F-4, 84F-5, and 84F-6 (the "affected flares"), to enable an increase in the use of supplemental natural gas for the purpose of improving flare performance. The projected increase in emissions attributable to this increase in supplemental natural gas is not significant, as shown in Attachment 1.

ii. For these flares, this permit also authorizes installation of additional instrumentation (on-line gas chromatographs, flare gas flow meters, and steam meters) and additional operational control systems (stepped steam control valves, flare supplemental gas controls, and automated steam controls), which the Permittee would use to better manage operation of the flares for effective destruction of flared gases. This permit is issued based on these changes being an emissions control project, which will act to reduce emissions of the flares.

b. The revised permit includes emission limits for affected flares and also establishes certain requirements for flaring overall at the refinery, which would facilitate compliance with Paragraph 61 of a Consent Decree, *United States v. Marathon Petroleum Company LP, et al.*, in the US District Court for the Eastern District of Michigan, Civil Action No. 2:11-cv-15449, lodged April 5, 2013 (Consent Decree).

Exhibit C

1.2 Coordination with Other Permits

a. This permit does not affect applicable requirements for the source that are established in the Clean Air Act Permit Program (CAAPP) permit for the source or in subsequent construction permits for the projects at the source, whose requirements have not yet been included in the CAAPP permit for the source.

b. In particular, this permit does not affect the Permittee's existing obligations with respect to flares, including the following, which shall now encompass the improvements made to the flares pursuant to this permit.

i. The Permittee shall monitor the flares to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.18(d)]

ii. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the flares in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 60.11(d)]

1.3 Non-Applicability Provisions

a. This permit is issued based on this project not being a major modification for purposes of the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21. This is because this project will not result in significant increases in emissions of PSD pollutants. (See also Attachment 1.)

b. This permit is issued based on the increase in the supplemental use of natural gas at the flares not constituting a modification of the flares for purposes of the New Source Performance Standards for Petroleum Refineries, 40 CFR 60, Subpart Ja, pursuant to 40 CFR 60.14(e)(5), because the primary purpose of this change is to improve the performance of the flares and reduce emissions of volatile organic material and hydrogen sulfide.

1.4 Provisions for Affected Flares

a. NSPS Subparts A and J. The affected flares shall continue to be an "affected facility" within the meaning of 40 CFR 60 Subparts A and J; however, except as set forth in Condition 1.4(b)(i), each affected flare shall comply with the requirements of Subparts A and J, including all monitoring, recordkeeping, reporting, and operating requirements, by no later than December 31, 2016. [Paragraph 58 of the Consent Decree]

b. NSPS Subparts A and Ja. Each affected flare shall be an "affected facility" within the meaning of 40 CFR 60 Subparts A

and Ja, and shall comply with the requirements of Subparts A and Ja, including all monitoring, recordkeeping, reporting, and operating requirements, by the later of: (i) December 31, 2016; or (ii) the date(s) by which a "modified" flare (within the meaning of Subpart Ja) must comply with the requirements of Subpart Ja. [Paragraph 58 of the Consent Decree]

i. To the extent that the later of the two possible dates is December 31, 2016, then Subpart Ja, and not Subpart J, is the applicable Subpart on and after December 31, 2016.

ii. 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 December 31, 2016 and the applicable date(s) of Subpart Ja. Thereafter, only Subpart Ja is applicable.

iii. On and after the date(s) that each affected flare is subject to Subpart Ja, Subpart J no longer is applicable to that affected flare.

c. The Permittee shall comply with the instrumentation, monitoring system, and recordkeeping requirements in Attachment 2 for affected flares 84F-1, 84F-5, and 84F-6.

1.5 Emission Limits

SO_2 emissions from affected flares 84F-1, 84F-5, and 84F-6 combined shall not exceed 500 lb/hour based on a 24-hour rolling average.

1.6 Recordkeeping

The Permittee shall maintain records for the SO_2 emissions (pounds/hour, calendar day average) of the affected flares 84F-1, 84F-5, and 84F-6, with supporting documentation and calculations.

1.7 Reporting Requirements

The Permittee shall notify the Illinois EPA of deviations from the requirements of this permit within 30 days of such occurrence. Reports shall describe the deviation, the probable cause of such deviation, the corrective actions taken, and any preventative measures taken.

1.8 Authorization to Operate

The affected flares with additional supplemental natural gas and additional instrumentation and operational control systems may be operated under this construction permit until renewal of the source's CAAPP permit. This condition supersedes Standard Condition 6.

It should be noted that this permit has been revised at the request of the Permittee to include SO2 emission limits for certain affected flares and to include requirements for on-line monitoring and recording system for the affected flares.

If you have any questions on this permit, please contact Jason Kemnepp at 217/785-1705.

Edwin C Bakowski

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: June 15, 2012

ECB:JMS:jws JMS

cc: Region 3

Attachment 1: Projected Increases in Emissions from the Project (Tons/Year)

	Pollutant				
	NO_x	CO	SO_2	VOM	CO_2e
Emissions Increase (Flares 84F-1,2,3,4,5,6)	5.80	31.58	5.64	2.27	11,100*
PSD Significance Threshold:	40	100	40	40	75,000
Greater Than Significant?	No	No	No	No	No

*Includes a safety factor of 10 percent.

Attachment 2: Instrumentation and Monitoring System Requirements

1. Applicable Definitions [Adapted from Paragraph 12 of the Consent Decree]

"Air-Assisted Flare" shall mean a Flare that utilizes forced air piped to a Flare tip to assist in combustion; a Flare that utilizes a Minimum Steam Reduction System is a Steam-Assisted, not an Air-Assisted, Flare.

"Assist Air" shall mean all air that intentionally is introduced into an Air-Assisted Flare to assist in combustion. Assist Air does not include Ambient Air, air introduced through in a Minimum Steam Reduction System, or air entrained in Vent Gas.

"Flare" shall mean a combustion device that uses an uncontrolled volume of Ambient Air to burn gases.

"Minimum Steam Rate" or "Minimum Steam" shall mean the Total Steam Volumetric Flow Rate, in standard cubic feet per minute, or Total Steam Mass Flow Rate, in pounds per hour, recommended by the manufacturer of a Flare's tip at the time of flare tip installation, or such lower Total Steam Volumetric Flow Rate or Total Steam Mass Flow Rate as determined by the Flare tip manufacturer after Flare tip installation upon re-examination of the tip's requirements.

"Minimum Steam Reduction System" shall mean a system that utilizes a mixed stream of air and steam to reduce the Minimum Steam requirements of a Steam-Assisted Flare.

"Prevention Measure" shall mean an instrument, device, piece of equipment, system, process change, physical change to process equipment, procedure, or program to minimize or eliminate flaring.

"Purge Gas" shall mean the minimum amount of gas introduced between a Flare header's water seal and the Flare tip to prevent oxygen infiltration (backflow) into the Flare tip. For a Flare with no water seal, the function of Purge Gas is performed by Sweep Gas, and therefore, by definition, such a Flare has no Purge Gas.

"Steam-Assisted Flare" shall mean a Flare that utilizes steam piped to a Flare tip to assist in combustion. A Flare that utilizes a Minimum Steam Reduction System is a Steam-Assisted, not an Air-Assisted, Flare.

"Supplemental Gas" shall mean all gas introduced to a Flare to comply with the net heating value requirements of 40 CFR 60.18(b), 40 CFR 63.11(b).

"Sweep Gas" shall mean, for a Flare without a Flare Gas Recovery System, the minimum amount of gas introduced into a Flare header in order to: (a) prevent oxygen buildup, corrosion, and/or freezing in the Flare header; (b) maintain a safe flow of gas through the Flare header, including a higher flow during hot taps; and (c) prevent oxygen infiltration (backflow) into the Flare tip.

"Total Steam" or shall mean the total of all steam that intentionally is introduced into a Steam-Assisted Flare to assist in combustion.

"Total Steam Mass Flow Rate" shall mean the mass flow rate of Total Steam supplied to a Flare, in pounds per hour as calculated on a 5-minute block average.

"Total Steam Volumetric Flow Rate" shall mean the volumetric flow rate of Total Steam supplied to a Flare, in scfm as measured on a 5-minute block average.

"Vent Gas" shall mean the mixture of all gases found just prior to the Flare tip. This gas includes all Waste Gas, Sweep Gas, Purge Gas, and Supplemental Gas, but does not include Pilot Gas, Total Steam, or Assist Air.

"Vent Gas Volumetric Flow Rate" shall mean the volumetric flow rate of Vent Gas directed to a Covered Flare, in wet scfm, on a 5-minute block average basis.

"Vent Gas Mass Flow Rate" shall mean the mass flow rate of Vent Gas directed to a Covered Flare, in pounds per hour on a 5-minute block average.

"Vent Gas Molecular Weight" shall mean the Molecular Weight, in pounds per pound-mole, of the Vent Gas, on a 5-minute block average.

"Waste Gas" shall mean the mixture of all gases from facility operations that is directed to a flare for the purpose of disposing of the gas. "Waste Gas" does not include gas introduced to a flare exclusively to make it operate safely and as intended; therefore, "Waste Gas" does not include Pilot Gas, Total Steam, Assist Air, or the minimum amount of Sweep Gas and Purge Gas that is necessary to perform the functions of Sweep Gas and Purge Gas. "Waste Gas" also does not include gas introduced to a flare to comply with regulatory requirements; therefore, "Waste Gas" does not include Supplemental Gas.

2. Vent Gas Flow Monitoring System. This system shall:

   a. Continuously measure and calculate the total flow, in scfm and pounds per hour, of all Vent Gas;

   b. Continuously analyze pressure and temperature at each point of Vent Gas flow measurement;

   c. Have dual channel measurement at each point of Vent Gas flow measurement; and

   d. Have retractable or removable sensors at each point of Vent Gas flow measurement to ensure that the Vent Gas Flow Monitoring System is maintainable online.

3. Vent Gas Average Molecular Weight Analyzer. This instrument or system shall continuously analyze the average molecular weight of all Vent Gas. This analysis may be performed by an instrument that also serves as part of a Vent Gas Flow Monitoring System.

4. Gas Chromatograph ("GC"). This instrument shall be capable of speciating the Vent Gas constituents, including but not limited to H_2S. For all constituents except Hydrogen Sulfide ("H_2S"), the GC shall measure the concentration on a mole percent ("mol/mol%") basis; for H_2S, the GC shall measure the concentration on a parts per million volume basis ("ppmv"). The sample extraction point of the gas chromatograph may be located upstream of the introduction of Supplemental and/or Sweep and/or Purge Gas if the composition and flow rate of any such Supplemental and/or Sweep and/or Purge Gas is a known constant and if this constant then is used in the calculation of the volume percent of all gas constituents of the Vent Gas. [Adapted Paragraph 22 of the Consent Decree]

5. Instrumentation and Monitoring Systems: Recording and Averaging Times. The instrumentation and monitoring systems identified in Conditions 2-4 shall be able to produce and record data measurements and calculations for each parameter at the following time intervals. [Adapted Paragraph 27 of the Consent Decree]

   a. Vent Gas Flow and Vent Gas Average Molecular Weight: Measure continuously and record 5 minute block averages.

   b. Gas Chromatograph: Measure no less than once every 15 minutes and record that value.

6. Instrumentation and Monitoring Systems: Operation and Maintenance. The Permittee shall operate each of the instruments and monitoring systems required in Conditions 2-4, on a continuous basis except for the following periods. In no event, however, shall the excepted activities in Conditions 6(a) - 6(d) for any instrument exceed 110 hours in any calendar quarter. [Paragraph 28 of the Consent Decree]

   a. Malfunction of an instrument;

   b. Maintenance following instrument Malfunction;

   c. Scheduled maintenance of an instrument in accordance with the manufacturer's recommended schedule;

   d. Quality Assurance/Quality Control activities; and/or

   e. When the affected flare that the instrument or monitoring system is associated with is not in service.

7. Recordkeeping: The Permittee shall calculate and record, in accordance with the recording and averaging times required in Condition 5, the following parameters: [Adapted Paragraph 55 of the Consent Decree]

   a. Total Vent Gas Volumetric Flow Rate (in scfm).

   b. Total Vent Gas Mass Flow Rate (in lb/hr).

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless susperseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

   a. to enter the permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

   b. to have access to and to copy any records required to be kept under the terms and conditions of this permit,

   c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

   d. to obtain and remove samples of any discharge or emissions of pollutants, and

   e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

   b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

   c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

   d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

b. upon finding that any standard or special conditions have been violated, or

c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

DIRECTORY
ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR

or assistance in preparing a permit
pplication contact the Permit
ection.

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section
1021 N. Grand Ave E.
P.O. Box 19506
Springfield, Illinois 62794-9506

or a regional office of the
ield Operations Section.
he regional offices and their
reas of responsibility are
hown on the map. The
ddresses and telephone
umbers of the regional
ffices are as follows:

Illinois EPA
Region 1
Bureau of air, FOS
9511 West Harrison
Des Plaines, Illinois 60016
847/294-4000

Illinois EPA
Region 2
5415 North University
Peoria, Illinois 61614
309/693-5463

Illinois EPA
Region 3
2009 Mall Street
Collinsville, Illinois 62234
618/346-5120