

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Components	New Fugitive Components (Sampling Locations, Flanges, Connectors, etc.)	None
Railcar Loading Arms	Four Railcar Loading Arm Assemblies	Asphalt Vent Package (AVP)
Tank 233	Primary Asphalt Storage Tank	Asphalt Vent Package
Tank 234	Primary Asphalt Storage Tank	None
Tank 235	Asphalt "Day Tank"	None
Tank 236	Asphalt "Day Tank"	None

1.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected component" for the purpose of these unit-specific conditions, is a new fugitive component installed as part of the asphalt railcar loading facility project, as described in Conditions 1.1.1 and 1.1.2.
- b. This permit is issued based upon the affected components being subject to National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries, 40 CFR Part 63 Subpart CC. The Illinois EPA administers the NESHP for subject sources in Illinois pursuant to a delegation agreement with the USEPA. The Permittee shall comply with all applicable requirements of 40 CFR Part 63 Subpart CC.

Note: The Permittee has indicated that it generally has chosen to comply with the equipment leak requirements specified in 40 CFR Part 63 Subpart CC by complying with the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry 40 CFR Part 60 Subpart VV. This is one of the options for compliance set forth by 40 CFR Part 63 Subpart CC.

1.1.4 Non-Applicability of Regulations of Concern

- a. The Permittee has addressed the applicability of 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) to this project. The limits in this permit are intended to ensure that the project addressed in this construction permit does not constitute a major modification pursuant to these

rules, as further explained in Attachments 1 and 2. Two different contemporaneous time periods are included because the company has already obtained permits for projects that will be streamed in 2006. These two time periods address this project in the context of when it will be streamed, and also addresses the netting impact to the project with a future stream date.

- i. This permit is issued based upon an increase of 0.2 tons of VOM per year attributable to the new affected components.

1.1.5 Control Requirements and Operational Limits

- a.
 - i. The loading of asphalt material at the railcar loading facility shall not exceed 1,460,000 bbl/year.
 - ii. Compliance with the annual limit shall be determined from a running total of 12 months of data.
- b.
 - i. The railcar loading rack shall be equipped with a vapor collection and control system capable of reducing emissions by 96 percent.
 - ii. The Permittee shall conduct maintenance as per manufacturer's recommendation to ensure that each control system (asphalt vent package) works properly. At a minimum, the Permittee shall:
 - A. Replace the prefilter once per month; and
 - B. Replace the mist eliminator in accordance with the manufacturer's guidelines for maximum pressure drop across the mist eliminator.
 - iii.
 - A. The Permittee shall not commence to load material into storage tank 233 during an outage of the asphalt vent package. In the event filling of the tank has commenced, and there is an outage caused by a malfunction of the AVP, the Permittee shall comply with the recordkeeping and reporting requirements of Conditions 1.1.9 and 1.1.10.

- B. The Permittee shall not operate the asphalt railcar loading arms during an outage of the asphalt vent package.

1.1.6 Emission Limitations

- a. Emissions of volatile organic material from tanks 233, 234, 235, 236, the asphalt truck loading facility and the asphalt railcar loading facility shall not exceed 4.6 tons/month and 27.19 tons/year.
- b. Compliance with the annual limit shall be determined from a running total of 12 months of data.

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

The Permittee shall measure the pressure drop across the mist eliminator of the AVPs for purposes of determining replacement frequency of the mist eliminator.

1.1.9 Recordkeeping Requirements

The Permittee shall maintain a record of the following items:

- a. Amount of asphalt material loaded at the railcar loading rack (bbl/month and bbl/year);
- b.
 - i. Periods of time when Tank 233 is being filled with material and the asphalt vent package serving tank 233 is not operating;
 - ii. Periods of time when material is loaded out of the Asphalt Railcar Loading Rack and the asphalt vent package serving the rack is not operating;
 - iii. An estimate of emissions during each of the periods identified above (Condition 1.1.9(b) (i) or (ii)), with supporting calculations; and
 - iv. For each period identified above (Condition 1.1.9(b) (i) or (ii)), the reason the asphalt vent package was not in operation (planned maintenance, malfunction/breakdown of the AVP, etc.) and any corrective actions taken.

- c. The Permittee shall maintain a maintenance log for each asphalt vent package which, at a minimum, includes a record of the filter/mist eliminator replacement and the date of replacement;
- d. VOM emissions, including those emissions during periods when the asphalt vent package is not in operation, from tanks 233, 234, 235, 236, the asphalt truck loading facility and the asphalt railcar loading facility (tons/month and tons/year);
- e. For fugitive emissions from new components installed related to this project:
 - i. Number of new components by unit or location and type related to this project.
 - ii. A file containing the maximum VOM emissions attributable to the new components determined in accordance with Condition 1.1.12, including supporting calculations.

1.1.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA of any deviations with the permit requirements within 30 days, except as otherwise required by the Refinery's CAAPP Permit. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
- b. The Permittee shall notify the Illinois EPA of deviations of the requirements of Condition 1.1.5(b) (iii) within 30 days. The notification shall include the information required by the recordkeeping requirements of Condition 1.1.9(b).

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

- a. Emissions from asphalt rail car loading rack shall be based on the recordkeeping requirements in Condition 1.1.9, applicable standard emission factors such as Equation 1 from AP-42, Compilation of Air Pollutant Emission Factors, Section 5.2: Transportation And Marketing Of Petroleum Liquids, and the overall control efficiency of the control system.

- b. Emissions from tanks shall be determined through the use of an approved USEPA methodology, such as the TANKS program, and the overall control efficiency of the control system (if applicable).
 - c. Emission from new fugitive components shall be based on the recordkeeping requirements in Condition 1.1.9 and applicable standard emission estimate methodology published by USEPA in "Protocol for Equipment Leak Emission Estimates", EPA-453/R-95-017 (November 1995) or API Publication Number 337 for components in heavy liquid service.
2. The new/modified emission units addressed by this construction permit may be operated under this permit until renewal of the CAAPP permit or a modification of the CAAPP permit is issued provided the Permittee submits a timely application to amend the current CAAPP permit to incorporate this project.

If you have any questions on this permit, please contact Jason Schnepf at 217/782-2113.

Donald E. Sutton, P.E.
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Division of Air Pollution Control

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cc: Region 1
Lotus Notes

Attachment 1

Nonattainment NSR Applicability - VOM Netting Analysis

Contemporaneous Time Period of 2001 Through 2005

Table I - Emissions Increases and Decreases Associated With The Proposed Modification

<u>Item of Equipment</u>	<u>Past Actual (Tons/Year)</u>	<u>Future Potential (Tons/Year)</u>	<u>Emission Change (Tons/Year)</u>
Asphalt Railcar Loading	23.30	27.39	4.09

Table II - Source-Wide Creditable Contemporaneous Emission Increases

<u>Item of Equipment</u>	<u>Commencement of Operation Date</u>	<u>Emissions Increase (Tons/Year)</u>	<u>Permit Number</u>
FCC Jumpover Line	5/2002	0.22	02030040
Low Sulfur Mogas	10/2003	17.28	01030070
FCC Expander Turbine Repl.	10/2003	0.25	02040013
Coker B/D Tank	3/2004	0.00	03060085
	Total:	17.75	

Table III - Source-Wide Creditable Contemporaneous Emission Decreases

<u>Item of Equipment</u>	<u>Commencement of Operational Change Date</u>	<u>Emissions Decrease (Tons/Year)</u>	<u>Permit Number</u>
Coker B/D Recovery Project	11/2004	5.90	03060091

Table IV - Net Emissions Change

	<u>(Tons/Year)</u>
Increases and Decreases Associated With Proposed Modification	4.09
Creditable Contemporaneous Emission Increases	17.75
Creditable Contemporaneous Emission Decreases	<u>- 5.90</u>
	15.94

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Attachment 2

Nonattainment NSR Applicability - VOM Netting Analysis

Contemporaneous Time Period of 2002 Through 2006

Table I - Emissions Increases and Decreases Associated With The Proposed Modification

<u>Item of Equipment</u>	<u>Past Actual (Tons/Year)</u>	<u>Future Potential (Tons/Year)</u>	<u>Emission Change (Tons/Year)</u>
Asphalt Railcar Loading	23.30	27.39	4.09

Table II - Source-Wide Creditable Contemporaneous Emission Increases

<u>Item of Equipment</u>	<u>Commencement of Operation Date</u>	<u>Emissions Increase (Tons/Year)</u>	<u>Permit Number</u>
FCC Jumpover Line	5/2002	0.22	02030040
Low Sulfur Mogas	10/2003	17.28	01030070
FCC Expander Turbine Repl.	10/2003	0.25	02040013
Coker B/D Tank	3/2004	0.00	03060085
ULSD/CSO Stripper	4/2006	6.69	03110060
	Total:	24.44	

Table III - Source-Wide Creditable Contemporaneous Emission Decreases

<u>Item of Equipment</u>	<u>Commencement of Operational Change Date</u>	<u>Emissions Decrease (Tons/Year)</u>	<u>Permit Number</u>
Coker B/D Recovery Project	11/2004	5.90	03060091

Table IV - Net Emissions Change

	<u>(Tons/Year)</u>
Increases and Decreases Associated With Proposed Modification	4.09
Creditable Contemporaneous Emission Increases	24.44
Creditable Contemporaneous Emission Decreases	<u>- 5.90</u>
	22.63

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PROJECT SUMMARY

I. INTRODUCTION

A construction permit application has been submitted by ExxonMobil for an asphalt railcar loading operations. The project will enable the refinery to distribute asphalt material product via railcars, an alternative form of transportation allowing greater reliability during winter operations. The conditions in the proposed permit for the project are based on the project not being a major modification under 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM). The proposed permit conditions include emission limitations, monitoring requirements, recordkeeping requirements, and reporting requirements.

II. SOURCE DESCRIPTION

ExxonMobil operates a petroleum refinery located in Joliet, Illinois, Will County. Will County is designated as attainment for all pollutants except ozone, which is designated as severe nonattainment.

Currently, the refinery produces asphalt material and distributes the product via barges or through tanker trucks. When the river freezes, barge traffic may be shutdown. This project will enable the refinery to continue to distribute asphalt material product via railcars, a more reliable form of transportation in the winter. This project will also allow for greater flexibility in asphalt distribution options year-round.

This operational flexibility will result in an increase in asphalt distribution. Additional control measures will also be added as part of this project to reduce emissions from the rail car loading rack and an existing asphalt material tank.

Emissions from this project will result from the loading losses at the railcar loading rack, fugitive leaks associated with new components, and working losses due to increased throughput at the asphalt storage tanks.

III. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois. The Board has standards for sources of volatile organic material. This site readily complies with all applicable Board standards.

IV. PROPOSED PERMIT

The conditions of the permit would contain limitations and requirements that are intended to assure that this project will not trigger the requirements of MSSCAM. The permit conditions establish appropriate compliance procedures, including monitoring requirements, recordkeeping requirements, and reporting requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the refinery is operating within the limitations set by the permit.

V. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the facility meets all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft permit. The Illinois EPA is therefore proposing to issue a construction permit for this project. Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit.

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