

PROJECT SUMMARY

I. Introduction

A construction permit application has been submitted by ExxonMobil Oil Corporation for an Ultra Low Sulfur Diesel (uLSD) project. The uLSD project will enable the refinery to produce low sulfur diesel as required by federal regulation. This project does not involve modifications to other process units at the refinery, including the Fluidized Catalytic Cracking Unit (FCCU) and Coker Unit. The conditions in the proposed permit for the project are based on the project not being a major modification under 40 CFR 52.21, Prevention of Significant Deterioration (PSD) or 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCM). 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.

The ultra low sulfur diesel (uLSD) project will enable the refinery to produce low sulfur on-road diesel fuel as required by federal regulation. Diesel is made from a number of distinct blend stocks or streams produced at the refinery. This project allows the refinery to remove sulfur from certain streams at the level required to produce ultra low sulfur diesel. This will be done by enhancing the sulfur removing capabilities of the existing catalytic hydrodesulfurization (CHD) unit.

The CHD unit is a continuous operation that improves the quality of high sulfur feedstock by removing sulfur, nitrogen and metal compounds. Additional reactors will be installed to accomplish the enhanced sulfur removing capabilities.

The additional reactors will require additional heat which will be provide by increasing the firing of the CHD Charge Heater, CHD Stripper Reboiler and Aux Boiler. These units currently have sufficient capacity to handle this increased firing.

The south sulfur recovery unit (SSRU) will experience an additional loading of sulfur due to the incremental sulfur removed in the CHD Unit. The SSRU currently has sufficient sulfur production capacity to handle this increased loading.

Several individual drain systems will be installed or modified as part of the project.

This project does not involve modifications to other process units at the refinery, including the Fluidized Catalytic Cracking Unit (FCCU) and Coker Unit.

III. **Emissions**

The only new emissions units that would be added to the refinery would be new fugitive components, such as valves and flanges, present in the new piping. These fugitive components have the potential to emit volatile organic material (VOM) when a leak occurs.

IV. **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 nitrogen oxides, carbon monoxide, volatile organic material, sulfur dioxide, and particulate matter. This site readily complies with all applicable Board standards.

V. **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 PSD or MSSCM. 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.

VI. **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 permit with federally enforceable limits for this project.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit.