

PROJECT SUMMARY

I. Introduction

Ortek, Inc. has applied for a revision to its current lifetime operating permit #97050092 to incorporate the thermal oxidizer from construction permit #98030069 at its McCook oil refining facility. The proposed limits would be accompanied by recordkeeping and reporting requirements to assure that the facility complies with all applicable regulations and standards.

The Director of the Illinois Environmental Protection Agency (IEPA) has decided to conduct a public hearing prior to taking final action on the application because of significant public interest in this project.

II. Source Description

Ortek, Inc. accepts used crude or synthetic oil and utilizes atmospheric and vacuum distillation to produce a petroleum lube oil distillate and distillation bottoms (asphalt). The petroleum lube oil distillate is sold to crude oil refineries as Vacuum Gas Oil for use as feedstock for thermal catalytic crackers in the production of high-octane gasoline and low sulfur diesel fuel. The distillation bottoms (asphalt) from the vacuum towers are used as an asphalt extender for the roofing and road grade asphalt industry. The facility also operates a wastewater treatment plant with a water separator.

The natural gas fired thermal oxidizer is used to control process gases, vapors, and fumes from the wastewater treatment plant and distillation towers. The thermal oxidizer raises the temperature of the process gas and fumes to at least 1200 °F with excess combustion air to destroy the volatile organic material and other combustible gases.

III. Emissions

The primary pollutants emitted from the facility are fuel combustion emissions which includes particulate matter, nitrogen oxides, volatile organic material (VOM), and carbon monoxide. There are negligible emissions of VOM from the distillation tower and wastewater treatment system controlled by the thermal oxidizer and other miscellaneous sources.

IV. Applicable Emission Standards

Emissions of all regulated pollutants from the Ortek facility are below the major source levels. All emission sources in Illinois must comply with the Illinois Pollution Control Board emission standards at 35 Ill. Adm. Code, Subtitle B. The Ortek process controlled by the thermal oxidizer is subject to 35 Ill. Adm. Code (IAC) 218.302 for the use of organic material in the re-refining processes and 35 IAC 218.141 for the use of organic material in the water separator. Pursuant to 35 IAC 218.141 and 218.302, the facility must achieve at least an 85% reduction of VOM emissions. The Board also has standards for emission units of fuel combustion emissions. This site complies with all applicable Board standards.

V. Proposed Permit

The conditions of the proposed permit contain limitations and requirements to assure that this facility will comply with all applicable regulations. The permit sets limitations on usage of raw materials and throughput. These limitations are consistent with the capacity of the facility.

The permit conditions also establish appropriate compliance procedures, including inspection practices, recordkeeping requirements, and reporting requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the facility is operating within the limitations set by the permit and is properly controlling emissions.

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 revised lifetime operating permit to include operation of the thermal oxidizer.

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

DES:TNE