

Project Summary - Chicago Heights Steel - Chicago Heights

I. Introduction

An application has been voluntarily submitted by Chicago Heights Steel in order to voluntarily incorporate federally enforceable limits for modifications to their metal fabrication and coating process at their facility in Peoria, Illinois. These limits would prevent the modifications from being major as defined by NSR. The proposed limits would be accompanied by recordkeeping and reporting requirements to ensure that the modifications are operated as a non-major modification. These conditions would be enforceable by both the State of Illinois and the U.S. Environmental Protection Agency.

II. Source Description

Chicago Heights Steel processes used steel rails and billets that are heated in a natural gas-fired reheat furnace to sufficiently high temperatures for rolling into steel fence posts and other merchant products using rolling mills. Chicago Heights Steel has requested a construction permit for the installation of a recuperator heat recovery device and new ultra low NOx burners on the reheat furnace. The replacement furnace burners will increase the firing rate of the reheat furnace from 90 mmBtu/hr to 95 mmBtu/hr with a maximum operating rate of 50 tons/hour. The permit request also addresses modifications to paint line #2 including the replacement of the existing paint dip tank with a spray box and installation of a new gas-fired curing oven. In addition the permit will also address use of additional punch lubricant in fabrication operations and the coating of product with rust inhibitors.

III. Emissions

The primary air contaminants emitted from the reheat furnace and coating operations are Volatile Organic Material, VOM, from the additional metal fabrication lubricants and rust inhibitors; Nitrogen Oxides, NOx, and Carbon Monoxide, CO from natural gas combustion; Particulate Matter, PM and Sulfur Dioxide, SO2, emissions will also be emitted but in smaller amounts. Total facility VOM, NOx, CO, PM and SO2 emissions will increase by the following amounts; 38.07, 35.13, 24.3, 2.20, & 0.173 tons/year respectively.

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 NO_x, SO₂, CO, VOM, and PM. The modification to the reheat furnace and coating operations readily comply with all applicable Board standards.

V. Proposed Permit

The conditions of the proposed permit contain limitations and requirements to ensure that this project will be operated as a non-major modification. The permit conditions also establish appropriate compliance procedures, including recordkeeping 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 are properly controlling emissions.

VI. Request for Comments

It is the Illinois EPA's preliminary determination that the above noted modifications to this Source meet 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 operation. Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 164.

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