

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF AIR, PERMIT SECTION  
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PROJECT SUMMARY  
FOR A REVISED CONSTRUCTION PERMIT APPLICATION  
FROM  
LONE STAR INDUSTRIES, INC.  
FOR A  
ROLLER MILL/HIGH EFFICIENCY SEPARATOR SYSTEM ON FINISH MILL  
OGLESBY, ILLINOIS

Site Identification No.: 099816AAF  
Application No.: 89060051  
Date Received: December 23, 2002

Schedule

Public Comment Period Begins: 08/26/2003  
Public Comment Period Closes: 09/26/2003

Illinois EPA Contacts

Permit Analyst: Minesh Patel, 217/782-2113  
Community Relations Coordinator: Brad Frost, 217/782-7027

## **I. INTRODUCTION**

Lone Star Industries, Inc. (Lone Star) operates a Portland cement manufacturing plant in Oglesby Illinois. The Portland cement manufacturing process starts with quarrying limestone and shale. These raw materials undergo preliminary crushing after the quarry operation. The raw materials are dried, chemically proportioned, concurrently ground to a fine powder in a raw mill and subsequently blended in homogenizing silos. The resulting kiln feed is heated in a dry process rotary kiln to the temperature of about 2700 F at which the limestone and shale chemically react, partially melt the fuse into small balls. This Portland cement “clinker” is cooled, mixed with a small amount of gypsum and ground to a fine powder in a finish mill. Particulate matter or dust is the primary emission from the various milling and material handling operations in the manufacture of Portland cement.

## **II. PROJECT DESCRIPTION**

Back in November of 1989, Construction Permit was issued to Lone Star for the Modernization Project. This project replaced the old Raw Mill Department with a new material handling belt conveyor system with bag filters, three new rock bins with fabric filters, a roller mill with a fabric filter, a new kiln feed system, and a high efficiency air separator. The project was not major modification under the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21.

The Lone Star has requested a revision of that Construction Permit which will (1) allow continuous operation of the roller mill, high efficiency separator, rock bins, and belt conveyor with a reduction in permitted hourly emissions of particulate matter (PM) and no change in the permitted annual PM emissions and (2) to simplify provisions coordination the operation of the roller mill with the operation of the kiln given changes that have been made to these units.

## **III. PROJECT EMISSIONS**

The annual permitted emissions from the equipments are not increased in the revised draft permit, because of the reduction in the permitted hourly emissions of equipments. Actual annual emissions of the facility would be less than these limits to the extent that the actual performance of the equipment is better than projected and the equipment are not utilized as much.

## **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 proposed revisions will readily comply with applicable state emission standards (35 Ill. Adm. Code: Subtitle B).

Certain emission sources are subject to New Source Performance Standards (NSPS) for Portland Cement Plants, 40 CFR 60, Subpart F. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement. These standard limits the opacity of the visible emissions of the equipments to 10%. The project should readily comply with this standard.

## **V. APPLICABLE REGULATORY PROGRAMS**

This revision to the Construction Permit is not considered a major modification project under the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21. This is because the revision does not allow any increase in annual emissions from the equipment as limited by the permit.

## **VI. PROPOSED PERMIT**

The conditions of the draft permit for the facility contain limitations and requirements for the equipments to help assure that the facility complies with applicable regulatory requirements. The draft permit also identifies measures that must be used as good air pollution control practices to minimize emissions from the project.

The draft permit includes enforceable limits on emissions and operation for the equipments to assure that facility remains below the levels at which it would be considered major for PSD. The permit also establishes appropriate compliance procedures for the facility, including requirements for emission testing, monitoring, recordkeeping, and reporting.

These measures are being imposed to assure that the emissions of the project are accurately tracked to confirm compliance with both the short-term and annual emission limits established for the equipment.

## **VII. REQUEST FOR COMMENTS**

It is the Illinois EPA's preliminary determination that the proposed permit meets all applicable state and federal air pollution control requirements. The Illinois EPA is therefore proposing to issue this permit.

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