

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR, PERMIT SECTION
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PROJECT SUMMARY
FOR A CONSTRUCTION PERMIT APPLICATION FROM
CONGRESS DEVELOPMENT COMPANY FOR AN
ENCLOSED FLARE AT ITS LANDFILL FACILITY IN
HILLSIDE, ILLINOIS

Site Identification No.: 031123ABP
Application No.: 07090039
Date Received: September 12, 2007

Schedule

Public Comment Period Begins: February 27, 2008
Public Comment Period Closes: March 28, 2008

Illinois EPA Contacts

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I. INTRODUCTION

Congress Development Company (Congress) has submitted a construction permit application for a new enclosed flare at its landfill in Hillside. This facility is in the process of being closed and is only allowed to accept waste in accordance with the approved closure plan. Flares are used at the facility as part of the control system for landfill gas generated by waste buried at the facility. Congress has also applied for higher limits for sulfur dioxide (SO₂) and volatile organic material (VOM) emissions of an existing flare to address the results of the recent landfill gas sampling. The construction of a new enclosed flare and revision to the emissions limit for an existing flare require a construction permit from the Illinois EPA.

The Illinois EPA has reviewed Congress application and made a preliminary determination that the application for the proposed project meets applicable requirements. Accordingly, the Illinois EPA has prepared a draft of the air pollution control construction permit that it would propose to issue for this project. However, before issuing this permit, the Illinois EPA is holding a public comment period to receive comments on the proposed issuance of this permit and the terms and conditions of the draft permit.

II. PROJECT DESCRIPTION

Congress currently operates an enclosed flare and two open flares, at this facility, as its control system for landfill gas. The capacity of the existing flare system is 6,000 cfm of landfill gas (2,000 cfm of gas for each of the three existing flares). The new enclosed flare with a capacity of burning 4,000 cfm of landfill gas would replace one of the existing open flares. After the completion of this project, Congress would use the remaining open flare as a backup for periods of maintenance or other outage of an enclosed flare.

The principal air contaminants emitted from the flaring of landfill gas would be nitrogen oxides (NO_x), carbon monoxide (CO), and SO₂. There would also be minimal emissions of VOM, particulate matter (PM), and hazardous air pollutants (HAPs) from the flaring of landfill gas.

Emissions are minimized by proper operation of the flares.

III. PROJECT EMISSIONS

The potential emissions from the new enclosed flare would be as follows. These emissions reflect recent data for the sulfur and organic compounds (nonmethane) content of the landfill gas, which is higher than previous data. Previous permitting was based on landfill gas containing 269 and 1,000 ppm for sulfur and volatile organic compounds, respectively, while recent data shows about 900 and 1,062 ppm, respectively.

<u>Pollutants</u>	Emission Limits
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	<u>(Tons/Year)</u>
NOx	31.5
CO	105.2
SO2	160.8
PM	8.2
VOM	5.1

Potential emissions for the SO₂ and VOM from the remaining open flare are revised from current limits, which were set in Construction Permit 06050071, to address results of recent sampling for sulfur and organic content of the landfill gas at this facility:

<u>Pollutants</u>	<u>Emissions (Tons/Year)</u>	
	Current	Revised
SO2	23.5	80.0
VOM	2.5	3.7

Total emissions of SO₂ from the facility are limited to 242 tons/year.

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 application shows that the facility would comply with the applicable state emission standards (35 Ill. Adm. Code: Subtitle B).

The facility is subject to the requirements of 35 IAC Part 220 Subpart B, for Municipal Solid Waste (MSW) Landfills. Pursuant to these rules, all the gas collected from the facility shall be diverted to the flare or other control device, which must either control emissions of organic compounds (nonmethane) by 98 weight percent or to less than 20 ppmv.

The facility is also subject to the requirements for National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills, 40 CFR 63 Subpart AAAA, because the facility has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters, has estimated uncontrolled emissions of nonmethane organic compounds equal to or greater than 50 megagrams per year (mg/yr) and is subject to an EPA approved state plan. Pursuant to these regulations, Facility must meet the operation and maintenance, and startup, shutdown, and malfunction (SSM) plan requirements of the General Provisions of the NESHAP, 40 CFR 60 Subpart A.

The proposed project is not a major project under the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21 or Major Stationary Sources Construction and Modification (MSSCAM), 35 IAC Part 203. This is because the potential emissions from the landfill after this project, as limited by the permit based on information provided in the permit application, would be less than the major source thresholds for PSD, i.e., 250 tons per year for each PSD pollutant, and less than the major source threshold for MSSCAM for NO_x, PM, and VOM.

The facility is not subject the requirements for New Source Performance Standards (NSPS) for Municipal Solid Waste Landfill, 40 CFR 60 Subpart WWW because the facility has not commenced construction, reconstruction, or modification after May 30, 1991.

V. OTHER REQUIREMENTS

The facility is subject to the requirements of the Agreed Preliminary Injunction and Order dated January 26, 2006, Agreed Order Supplementing Agreed Preliminary Injunction and Order dated April 4, 2006, and Second Supplemental Agreed Preliminary Injunction and Order issued by Circuit Court of Cook County, Illinois County Department, Chancery Division (No. 06 CH 1438).

The facility is also subject to the requirements of Agreed Order for Emergency Engineered Closure dated March 12, 2007 issued by the Circuit Court of Cook Count, Illinois County Department, Chancery Division (No. 06 CH 5781).

VI. DRAFT PERMIT

The conditions of the draft permit for the proposed project contain limitations and requirements for the flares at this facility. The draft permit also identifies measures that must be used as good air pollution control practices to minimize emissions from the flares.

The draft permit includes enforceable limits on emissions and operation of the facility to assure that it remains below the levels at which it would be considered major for PSD or NSR. In addition to limiting annual emissions, the permit also includes limits on hourly emissions from the flares.

The permit also establishes appropriate compliance procedures for the flares, including requirements for emission testing, monitoring, recordkeeping, and reporting. Emission testing is required as part of the initial shakedown and operation of the new enclosed flare after completion of construction.

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

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.