

**LEHIGH PORTLAND
CEMENT CO.**

IOWA

EPA ID# IAD005288634

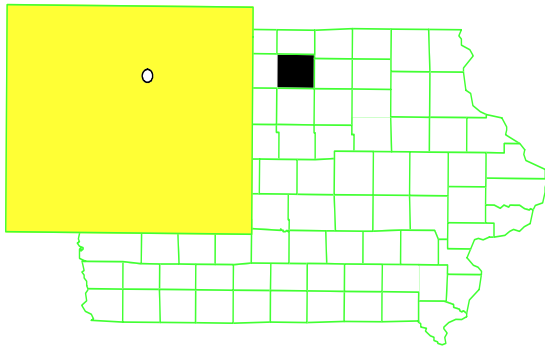
EPA Region 7

City: Northern section of Mason City

County: Cerro Gordo County

02/10/2009

Other Names:



SITE DESCRIPTION

The Lehigh Portland Cement Company owns and operates this portland cement processing facility on approximately 150 acres in the northern area of Mason City. The facility has been in operation since 1911. The southern side of the site is bordered by 25th Street, a small residential area is located to the north of the site, and US Highway 65 lies to the east. The site was composed of abandoned limestone quarries and mine tailings piles. Waste kiln dust, a by-product in the manufacturing of cement, was discarded in piles throughout the facility, and a large quantity also was disposed of directly into two of the four abandoned quarries on the property. The quarries filled with water and drained into Calmus Creek directly south of the site. In 1984, the Iowa Department of Water, Air, and Waste Management (WAWM) conducted a comprehensive study of Calmus Creek and found contaminants that may have come from Blue Waters Pond, one of the quarries on the Lehigh site. Another NPL site, the Northwestern States Portland Cement Company, is situated immediately south of the site and is separated from it by Calmus Creek. An estimated 31,000 people obtain drinking water from public and private wells within 3 miles of the site. Wells are the sole source of drinking water in the area. A small subdivision of about 300 residents is located a mile north of the site. The Winnebago River, within 3 miles downstream of the site, is used for recreational activities, especially sport fishing.

Site Responsibility:

This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 08/30/90

Deleted Date: 06/30/93

THREATS AND CONTAMINANTS

Ground water on site became contaminated with heavy metals including arsenic, as well as elevated pH levels caused by the former process waste disposal practices at the site. However, no significant levels of contaminants were found in off-site municipal or private drinking water wells. Sulfates and elevated pHs were detected in Arch Pond and Blue Waters Pond, both on the Lehigh site. Calmus Creek was affected by the high pH level. The pH level of soil, sediments, and surface water of the quarry was high enough to be considered above normal; therefore, direct contact with these substances could be a health hazard. If the contaminant plume migrates from Calmus Creek into the Cedar Valley Aquifer, the private wells may become contaminated and could pose a health hazard to people who use them.

CLEANUP APPROACH

Response Action Status

Initial Action: After the Iowa Department of Natural Resources (IDNR) found that surface water contamination in the creek was related to contaminants at the site, a weir was placed in the southeastern corner to control water elevations, because one of the quarries overflows during heavy rainfall. Lehigh Portland Cement Company installed three monitoring wells and sampled ground water and surface water.

Entire Site: EPA selected a remedy in the 1991 Record of Decision including draining the quarry ponds, treating the extracted water before discharging it, and consolidating and/or capping all the cement kiln dust, and installing dewatering wells. The design of the remedy started in late 1992. The remedial action was initiated in December 1993. The remedial action included dewatering ponds, treating pond water using neutralization, excavating and consolidating cement kiln dust, constructing clay caps over the consolidated cement kiln dust, monitoring ground water and surface water, and institutional controls. The remedial action was completed in 1997. A five-year review was conducted in 2002, and the site was determined to be protective of human health and the environment. The second five-year review was conducted in 2007. As part of the 2007 five-year review, a site inspection was conducted on April 5, 2007, by EPA, IDNR and Lehigh Cement Company. All the capped areas and the ground water monitoring wells were found to be well maintained by Lehigh Cement Company and the site was found to be protective of human health and the environment.

Site Facts: In 1985, the State issued an Administrative Order requiring Lehigh to conduct a hydrogeological investigation of the quarry. In 1989, the State issued another Administrative Order requiring Lehigh to conduct a study to determine the type and extent of contamination on the site. In 1992, EPA issued a Unilateral Administrative Order for Lehigh to implement the selected remedy for the site.

ENVIRONMENTAL PROGRESS



A Record of Decision was signed in 1991, which selected a remedy for the Lehigh Portland Cement Company area and the Lime Creek Nature Center area. The remedy for the Lehigh Portland Cement Company and Lime Creek Nature Center areas included dewatering ponds, treating pond water using neutralization, excavating and consolidating cement kiln dust, constructing clay caps over the consolidated material, monitoring ground water and surface water, and providing institutional controls. A five-year review inspection was conducted in April 2007, by EPA, IDNR and Lehigh Cement Company. All of the capped areas and the ground water monitoring wells in the Lehigh facility area and the Lime Creek Nature Center were found to be well maintained. Lehigh Cement Company continues to conduct ground water monitoring and conducts site maintainance, including the site capped areas in the facility area and the Lime Creek Nature Center area. The 2007 five-year review found the site to be protective of human health and the environment.

COMMUNITY INVOLVEMENT

- 9/02 - Fact Sheet announcing start of first 5-year review. Display Ad in Globe Gazette.
- 3/04 - Fact Sheet announcing the completion of first 5-year review. Display Ad in Globe Gazette.
- 11/06 - Fact sheet and display ad announcing the start of the second 5-year review

11/07 - Fact sheet announcing completion of second 5-year review.

SITE REPOSITORY



Mason City Public Library
225 Second Street
Mason City, IA 50401

Superfund Records Center
901 N. 5th St.
Kansas City, KS 66101
Mail Stop SUPR
(913)551-7166

REGIONAL CONTACTS

SITE MANAGER:

E-MAIL ADDRESS:

PHONE NUMBER:

Catherine Barrett/SUPR/R7/USEPA/US

barrett.catherine@epa.gov

(913) 551-7704

COMMUNITY INVOLVEMENT

COORDINATOR:

PHONE NUMBER:

E-MAIL ADDRESS:

Beckie Himes

913/551-7253

himes.beckie@epa.gov

STATE CONTACT:

PHONE NUMBER:

Robert Drustrup

(515) 281-8900

MISCELLANEOUS INFORMATION

STATE:

IA

07CM

CONGRESSIONAL DISTRICT:

02

EPA ORGANIZATION:

SFD-MOKS/SUPR

MODIFICATIONS

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