

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, July 8, 2009

From: Karen McCormick

Subject: DOW Acrylate

Highway 3142 Gate 28, Hahnville, LA

Latitude: 29.9750000

Longitude: -90.4494000

POLREP No.:

2 **Site #:**

Reporting Period:

D.O. #:

Start Date:

Response Authority:

Mob Date:

Response Type:

Demob Date:

NPL Status:

Completion Date:

Incident Category:

CERCLIS ID #:

Contract #

RCRIS ID #:

Site Description

At approximately 0445hrs on 7 July 2009, a tank began releasing ethyl acrylate vapors at the Dow Chemical Plant located in Hahnville, St. Charles Parish, Louisiana. The odors spread for at least 15 miles to the east into metropolitan New Orleans.

The tank had been taken out of service for maintenance and contained residual liquid ethyl acrylate and polymerized solid poly ethyl acrylate. The leak was detected when plant workers detected the odors. Further investigation revealed the the tank was heating up, and water was added to cool the tank and contents. At approximately 0530 hours the roof of the tank began to fail, releasing more vapors. Dow notified the St. Charles Parish Emergency Operations Center (EOC) at 0700 hours, and approximately 30 residents were evacuated. River Road (La Hwy 18) was closed near the plant.

Although the PEL is 25ppm, the odor threshold is 0.001 ppm with an acrid, irritating odor.

Dow sprayed foam onto the contents of the tank to suppress vapors. Louisiana Department of Environmental Quality (LDEQ) and Louisiana State Police (LSP) responded to the site. Dow and LDEQ conducted air monitoring with flame ionization detectors (FIDs).

EPA mobilized to the site at 1630 hours. EPA met with state and local officials, as well as representatives of Dow. EPA provided air monitoring support in the neighborhoods downwind of the plant. All EPA readings were less than 2ppm above background.

Dow maintained a foam blanket to suppress vapors. Dow added a sodium hydroxide solution to the tank to neutralize the contents. The sodium hydroxide reacted with the ethyl acrylate to form sodium acrylate and ethanol. These products are less volatile and have higher odor thresholds.

Current Activities

Dow circulated the material in the tanks to facilitate the neutralization reaction. Dow conducted hourly sampling of the tank contents to monitor the progress of the reaction. As of 1200 hours on 8 July, tank samples contained no detectable ethyl acrylate. DOW continues to maintain a foam blanket in case mixing is incomplete and some ethyl acrylate remains in the tank. The tank contains an estimated 100,000 gallons of material including ethyl acrylate, polymer, caustic, water, and firefighting foam. At approximately 0910 Dow began attempting to transfer material from the tank into rail cars, but was unsuccessful due to equipment problems and clogged lines. DOW is addressing the situation and will continue transfer operations again.

The evacuation order and the road closure of River Road (La Hwy 18) were lifted at 1530 hrs on 8 July. The St. Charles Parish EOC remains on alert status.

Planned Removal Actions

Dow is working to transfer the contents from the tank into rail cars, and arrange for disposal. Dow will

continue to maintain a foam blanket, conduct air monitoring. EPA and LDEQ will continue to conduct air monitoring.

Key Issues

The evacuation order has been lifted and the closed roads have been opened. The St. Charles Parish EOC remains on alert status.

response.epa.gov/DOWAcrylate