

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, May 18, 2009
From: Art Smith and David Dorian

Subject: FINAL POLREP

American Cold Storage Ammonia Spill
Louisville, KY
Latitude: 38.2208000
Longitude: -85.7747000

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|--------------------------|-----------|----------------------------|----------------|
| POLREP No.: | 3 | Site #: | A4ZL |
| Reporting Period: | | D.O. #: | |
| Start Date: | 5/14/2009 | Response Authority: | CERCLA |
| Mob Date: | 5/14/2009 | Response Type: | Emergency |
| Demob Date: | 5/18/2009 | NPL Status: | Non NPL |
| Completion Date: | 5/18/2009 | Incident Category: | Removal Action |
| CERCLIS ID #: | | Contract # | |
| RCRIS ID #: | | | |

Site Description

On May 13, 2009, the American Cold Storage Facility experience a failure of their refrigeration system that used anhydrous ammonia as the refrigerant. Two personnel conducting maintenance work perished due to the exposure to the ammonia gas. The Louisville Fire Department, KY Health Department, and KYDEP responded and performed rescue and recovery operations and air monitoring. The facility reported the incident to the NRC on May 14, 2009 (0928). The area is mixed use light industry and residential.

Current Activities

USES continued on Sunday May 17, 2009, to operate the scrubber system until the days end. The pH of the system effluent dropped to pH 8, correlating to a drop in the concentration of ammonia inside the plant. American Cold Storage has continued to pump out the refrigerant system; however, only a 0-1 psi negative pressure could be achieved with the pump capacity. On Monday May 18, the point of the leak was isolated and plugged.

At 0900 on May 17, 2009, USES entered the plant in Level B to assess plant conditions. NH3 Readings ranged from 40 ppm to 169 ppm inside the building. The level of respiratory protection was lowered to Level C. At 1045, USES began venting the building while CTEH monitored NH3 at a total of 6 locations including downwind, along the fence line, and at the command post. Perimeter monitoring read zero ppm NH3. At the backdoor to the freezer, readings varied from 20 to 40 ppm.

As the day progressed, the scrubber system was taken off line. Ventilation brought the levels inside the building down to 16 to 20 ppm; however values drifted upwards the following day as the freezer temperature increased. Monitoring inside continued to ensure appropriate PPE and OSHA compliance. Perimeter monitoring of ammonia indicated no potential health risk to the public during the final day of the emergency response.

Next Steps

The off gassing of frozen ammonia will require monitoring to ensure occupational exposures are within OSHA standards. KY OSHA will follow through as the lead regulatory agency for this issue

response.epa.gov/americancoldstorageammoniaspill