

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Friday, October 24, 2008

From: Art Smith

Subject: Initial Attempt to Extinguish Fire is Successful

Pyles Demolition Landfill Fire

Hwy. 551, Columbia, KY

Latitude: 37.1381000

Longitude: -85.2972000

POLREP No.:	2	Site #:	A4WX
Reporting Period:	10/23/2008 - 10/24/2008	D.O. #:	
Start Date:	10/21/2008	Response Authority:	CERCLA
Mob Date:	10/21/2008	Response Type:	Emergency
Demob Date:	10/23/2008	NPL Status:	Non NPL
Completion Date:	10/24/2008	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

On Oct. 21, 2008, OSC Smith was dispatched to a fire at the Pyles Demolition Recycling facility, a construction demolition and debris landfill in Columbia, KY, at the request of the KDEP Environmental Response Team (ERT). According to KDEP, the subsurface fire was discovered after odor complaints from area residents on Oct. 6 prompted an investigation by the KDEP by the Division of Waste Management's Columbia Regional Office. A notice of violation was issued to the company directing Pyles to take immediate action to extinguish the fire.

Upon arriving at the scene on Oct. 21, OSC Smith observed that firefighting efforts were being focused on isolating pockets of burning material from other combustible solid wastes. Smoke was clearly visible rising up out of the quarry the landfill was located in, and odors were noticeable for a considerable distance from the landfill. Although KDEP had collected SUMMA canister air samples from the landfill on Oct. 20-21, results were not yet available. OSC Smith subsequently requested that the Superfund Technical Assistance and Response Team (START) contractor TTEMI be dispatched to perform real-time air monitoring at the site.

Current Activities

START was tasked to perform air monitoring on Oct. 22, both in the immediate vicinity of the landfill as well as surrounding commercial and residential areas. Three separate points within the actual landfill were monitored for contaminants. Carbon monoxide (CO) levels in excess of 110 ppm were observed in the smoke plume along with a peak VOC level of 11.0 parts per million (ppm). Styrene, a listed hazardous substance, was detected at a concentration of 3.9 ppm.

In addition to monitoring within the landfill itself, START performed air monitoring in two separate areas along the perimeter of the landfill using EPA's Rapid Assessment Tools (RAT). The first area was immediately south and west of the landfill and the other area was in a residential area along Keltner Road to the west of the landfill where residents had complained of excessive odor and discomfort. A maximum carbon monoxide reading of 2.0 ppm was observed as well as a 200 micrograms per cubic meter particulate concentration. These perimeter loops suggest that although contaminant concentrations within the landfill itself are high, the levels drop sharply with distance away from the source.

KDEP had initially directed the landfill operators to remove smoldering material from the main source of the fire and place it elsewhere within the landfill to be further addressed. However, after further consideration, it was determined that up to 50,000 cubic yards of additional material were placed in the landfill, and excavation of all pockets of smoldering debris would be too time-consuming. In an effort to reduce not only the occupational exposure of Pyles' equipment operators removing the smoldering material (who were wearing only dust masks for personal protection) but also to eliminate the nuisance odors in the surrounding community, the decision was made to bring in dirt to smother the fire.

As the dirt cap was being placed, START placed a MultiRAE unit inside the cab of an excavator for approximately six hours in order to determine the workers' exposure to air pollutants. Readings for CO and VOCs yielded peak concentrations of 116 ppm and 12.1 ppm respectively with averages of 11 ppm and 1.1 ppm respectively.

These data suggest that once efforts to smother the fire began, ambient concentrations of CO and VOCs greatly diminished, thereby lessening the health risks of the workers in the immediate area.

EPA and START returned to the site on Oct. 23, and OSC Smith helped KDEP officials prepare a public statement. The OSC determined that the smoke coming from the landfill was not a threat to human health or the environment, and that while odors encountered by nearby businesses and residents may be a nuisance, they are not harmful to the public.

START and EPA demobilized the site on Oct. 23.

Planned Removal Actions

The Responsible Party (RP) will continue to place dirt on the fire until it is completely smothered. KDEP will provide direction to the RP concerning future use of the landfill for disposal of solid waste.

response.epa.gov/Pyles