

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, January 22, 2007

From: Art Smith

Subject: Emergency Response Phase Complete

CSX Derailment - Brooks, KY

State Highway 1020 & Huber Station Road, Brooks, KY

Latitude: 38.0589000

Longitude: -85.7100000

POLREP No.:	5	Site #:	A4NW
Reporting Period:	1/19/2007 thru 1/25/2007	D.O. #:	
Start Date:	1/16/2007	Response Authority:	CERCLA
Mob Date:	1/16/2007	Response Type:	Emergency
Demob Date:		NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

On Tuesday January 16, 2007, a CSX Transportation freight train derailed near CSXT milepost 000015 in Brooks, KY, approximately 25 miles south of Louisville, KY. The incident resulted in a release of hazardous substances into the environment, prompting an evacuation of homes, schools, and businesses within a one mile radius of the scene. The incident location is also a few miles west of Interstate 65 and an 8 mile stretch of the interstate was shut down for 12 hours. The derailment involved tank cars of 1,3-butadiene, c-hexane, and methyl ethyl ketone, which were detected in air and water samples collected in response to the incident. All fires were extinguished by 01/21/07, marking the transition from the emergency response to a long-term environmental investigation and cleanup. EPA and the Kentucky Department of Environmental Protection (KYDEP) are working jointly to oversee the work performed by CSXT.

For a description of the incident and previous actions taken, please see previous POLREPs.

Current Activities

The following actions took place during this reporting period:

On 01/20/07, CSX reported a spike in airborne levels of 1,3-butadiene at the wreck site during the early AM hours. Concentrations as high as 1.5 parts per million (ppm) were detected. As these values exceed the permissible exposure limit (PEL) of 1.0 ppm, work was halted and respiratory protection was required in the immediate area of the wreck scene. No exceedances of butadiene above the PEL were detected in offsite areas during this period.

CSX halted rail operations on 01/20/07 @ 1500 hrs., and excavated approximately 3,000 cubic yards of ballast and soil within a 7,500 sq. ft area encompassing the location where a butuadiene tank car was breached during the derailment. The excavation was completed, the area backfilled with clean material, and rail operations resumed @1000 hrs. on 01/21. During the excavation, shallow limestone bedrock was encountered at depth of 6' below land surface. CSX collected samples to verify soil conditions prior to backfilling. An underground piping system capable of collecting liquid runoff has been installed on both sides of the railroad track. This system may also be used to extract vapors from the subsurface at a later date.

Prior to beginning excavation, the Louisville Water Company (LWC) identified that a 6" diameter PVC water main running below the derailment site may be at risk, due to the release of hazardous substances during the incident. LWC terminated service in the immediate vicinity of the derailment on 01/20/07, and is working with CSX to resume service as quickly as possible.

On 01/20, EPA accompanied local residents displaced by the derailment on home visits to over 20 locations. CSX's contractor CTEH performed air monitoring for the presence of volatile organic compounds and particulate matter in the resident's homes. No readings above background were

detected. Due to the fact that water service has been disrupted, and that roads remain closed over a half-mile distance in both directions from the wreck site, up to 50 nearby residents remain evacuated as of the date of this report.

In response to reports that polymerized material was found floating in surface water at the confluence of Bluelick Creek and Floyd's Fork, EPA tasked the Region 4 Superfund Technical Assistance and Response Team (START) contractor (TTEMI) to perform sampling of surface water at 3 locations along the drainage system. The analysis was performed by the National Guard 41st Civil Support Team (CST) who deployed a field GC/MS to the scene. Analyses confirmed the presence of methyl ethyl ketone (MEK) at part per million level reported previously by CSX. CSX and its contractor Arcadis continue to collect water samples to track trends in MEK levels in surface water downstream of the site.

The EPA OSC requested the following additional resources to be deployed during this reporting period:

-The Department of Interior, United States Geological Survey (USGS) has been retained through an Interagency Agreement (IAG) to provide technical assistance in evaluating the fate and distribution of contaminants released into the environment.

-EPA Region 4 Scientific and Ecosystem Support Division (SESD) is tasked with reviewing the data generated by CSXT and qualifying it for public distribution.

In addition, a Region 4 EPA Region 4 Community Involvement Coordinator (CIC) is working with CSXT Communications staff to prepare information updates to the public on response activities.

As of 1/25/07, the following EPA resources remain onscene: 2 EPA, and 2 START members.

Planned Removal Actions

The following actions are planned by CSXT during the next reporting period:

Site Activities

Focused Residential Replacement Activities

- 24 Hour air monitoring for site and immediate surrounding area
- Continue implementing soil scraping in front yards of residents within Area A1.
- Collect confirmation surface soil samples from residential yards in Area A1, where scraping is complete.
- Finalize construction of temporary road to facilitate alternate means of residential access.
- Continue arborist survey of residential yards and land surveying of residential property lines; proposed lease land.

Surface Water Cleaning/Boom Management

- Complete shoreline cleaning (via pressure washing) on tributaries of the Salt River.
- Complete boom inspections and removal of all but 2 booms.

Haz/Mat Activities

- Transfer contents of cyclohexane railcar (118800) into tank trucks. Clean and purge car upon completion. Pending NTSB direction.
- Sift soil in containment area to recover missing rail and wheel sections.

Assessment Actions/Laboratory Coordination

- Continuing implementation of investigation work plan activities; including: soil, surface water, seep, groundwater, potable well, water line excavation screening samples for VOCs, SVOCs, TICs and maleic acid.
- Collect SW samples from 5 Work Plan locations, and 7 samples from 292/276 Huber Station property and upstream, including 3 upstream pasture samples.
- Collect flow measurements at 3 locations.
- Verify GPS data for all sampling points.
- Begin mapping bedrock underlying Area A.
- Vac sumps parallel to State Route 1020.

Solid Waste Management Activities

- Continue solidification/stabilization of recovered material from creek.
- Evaluate onsite treatment of generated water in Frac Tanks.
- Continue consolidating Frac Tanks, and creek debris in roll-offs.
- Manage water around waste staging area.

- Continue waste profiling and vendor disposal coordination.

CSX's contractors plan to conduct residential tap water sampling of evacuated homes to confirm contamination does not exist prior to re-occupancy. CSX also continues to respond to hotline calls from residents.

response.epa.gov/CSX_BrooksKY