

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Sunday, January 18, 2009

From: Subash Patel, OSC

Subject: Clean-Up Continues
TVA Widows Creek Spill
Steam Plant Road, Stevenson, AL
Latitude: 34.8849190
Longitude: -85.7577210

POLREP No.:	3	Site #:	A4XR
Reporting Period:		D.O. #:	
Start Date:	1/9/2009	Response Authority:	CERCLA
Mob Date:	1/9/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

At approximately 0600 hrs on January 9, 2009, a release of spent Flue Gas Desulfurization (FGD) material (calcium sulfate, or "gypsum") was discovered by TVA contractor TransAsh. The material is produced when limestone slurry (calcium carbonate) is used to scrub sulfur dioxide (SO₂) emissions from flue gas. A small amount of fly ash is also sent to the FGD ponds because one of the boilers does not have an electrostatic precipitator, and so the SO₂ scrubber also serves to remove the fly ash. The release occurred through a 36" retired-in-place standpipe from FGD Pond #2B. The cap on the pipe dislodged, releasing liquid and solid contents from the bottom of FGD Pond #2B into the Stilling Pond located below it. The material overflowed the Stilling Pond and released into Widows Creek. Widows Creek feeds into the Tennessee River approximately 2 miles downstream from the release. Gypsum also overflowed the weir on the Stilling Pond and released through NPDES outfall number DSN008 to the Tennessee River.

Additional information may be found on the EPA Region 4 home page, the Alabama Department of Environmental Management (ADEM) home page, and the TVA home page: <http://www.epa.gov/Region4/stevenson/index.html>, <http://www.adem.state.al.us/>, <http://www.tva.com/>.

Current Activities

Current operations have recovered:

- 1) About 1,065 cubic yards of material from the #008 ditch, and
- 2) About 16 tons of material from soil outside of stilling pond.

The operations are listed below.

- 1) Removing material out of the bank areas:

Material near the shoreline will be washed into boomed areas of the creek for collection.

Material located on land in the west bank area will be scraped off. Trees and stumps will be removed to access the area. The area will then be revegetated.

- 2) Dredging of #008 ditch:

A road has been built to access the ditch. An excavator is being used to remove material.

- 3) Dredging of the stilling pond:

Material will be returned to the gypsum pond.

4) Booms have been placed in the following locations:

- a) Mouth of the fall out canal leading to the Tennessee River;
- b) Along the wooded area in Widows Creek that runs parallel to the Tennessee River; and
- c) Various points along Widows Creek and at the mouth of Widows Creek.

In addition, 200 feet of turbidity curtain has been placed near Gypsum Area Access Bridge in Widows Creek.

Other operations include:

- 1) Sonar and plug samples have been used to determine the location of material in Widows Creek.
- 2) Grouting operations of the failed discharge pipe from 2B to stilling pond has been completed.
- 3) The #008 pipeline flush has been completed and the balloon plug has been installed.
- 4) Phase 1 Sampling Plan has been finalized by Unified Command and waiting signatures.
- 5) The Demobilization Plan has been approved by Unified Command.
- 6) Refortification of the dike where the weir had failed is ongoing.
- 7) Daily water samples are being collected from the following locations:

- a. County Road Bridge located 0.5 miles upstream on Widows Creek;
- b. Gypsum Area Access Bridge located 1/8 mile downstream on Widows Creek;
- c. NPDES discharge point for #008;
- d. 1 mile upstream of confluence on Tennessee River;
- e. Surface and Mid-Level water elevation at slough of Tennessee River;
- f. 600 feet downstream of confluence on Tennessee River; and
- g. 5 miles downstream of confluence near Alabama 117 on Tennessee River.

Planned Removal Actions

TVA continues to assess the pond system to ensure safety and environmental compliance.

Daily sampling of Widows Creek and Tennessee River will continue through the end of January and maybe into February if needed.

Recovered material will be returned to the gypsum pond, ash pond, and/or the municipal landfill.

TVA will begin air monitoring Monday, January 19. Wet conditions had persisted on site.

Next Steps

EPA will transition oversight to ADEM on Monday, January 19.

Key Issues

Less than 5,000 cubic yards of material was released from the stilling pond. Some of the material appear to have made its way to the Tennessee River. Sample data from the nearest water intake in the Tennessee River appears to be within Federal and State Maximum Contaminant Levels.

response.epa.gov/TVAWidowsCreekSpill