

Site: Martin Co.
Break: 2.10
Other: _____

85492

**POLREP NUMBER 12
KENTUCKY/WEST VIRGINIA COAL SLURRY SPILL
MARTIN COUNTY COAL CORPORATION
INEZ, KENTUCKY**

DATE: NOVEMBER 16, 2000
TO: DOUG LAIR, EPA REGION IV
CHARLIE KLEEMAN, EPA REGION III
FROM: GREG POWELL, EPA ERT *gp*

I. BACKGROUND

- A. At approximately 0200 hours on Wednesday, 11 October 2000, an estimated 250 million gallons of coal mine fine refuse slurry were released from a 72-acre impoundment operated by Martin County Coal Corporation (MCCC). The release occurred as a result of a sudden and unexpected breach into an underground mine adjacent to MCCC's refuse impoundment. The slurry entered both the Wolf Creek and Rockcastle Creek watersheds of Martin County, Kentucky. The spilled material has impacted more than 75 miles of surface water downstream of the site, including both the Tug Fork and Levisa Fork of the Big Sandy River, a tributary of the Ohio River. The Tug Fork and Big Sandy Rivers border both West Virginia and Kentucky.
- B. Several potable water and industrial intakes have been affected as a result of the spill.
- C. A Joint Information Center (JIC) has been established on site. The JIC serves to issue joint press releases from EPA, the state of Kentucky and MCCC. The OSC requests that all media inquiries be directed to the JIC at (606) 395-0353 or the EPA OSC at (606) 395-5395.

**II. CURRENT ACTIVITIES
(FROM 0800 HOURS, MONDAY NOVEMBER 13, 2000 THRU 1700 HOURS,
WEDNESDAY, NOVEMBER 15, 2000)**

Weather: Weather conditions have generally been favorable for removal activities. Off and on rain showers occurred on Monday, 11/13/00 conditions are forecasted to be seasonal with possible rain and or snow showers expected for Thursday and Friday. Concerns over possible flooding and migration of the slurry are still significant. An updated Precipitation Action Plan has been developed for a major storm event and has been approved by the Unified Command.

- A. West Virginia:
 - 1. The town of Fort Gay and Kermit, WV continues to receive water from alternate sources. The town of Kenova, WV continues to receive water from the Big Sandy River and is supplying water to all of its customers as well as to the Big Sandy Water District, Don Acres, Kenova, Cerdo, Ridgelawn, Buffalo, Centerville, and Prichard.

2. On 10 November 2000, the Fort Gay WTP conducted a test to see if they could pump clean water into their wet well. A bypass to keep water from flowing into the WTP was installed in the line with water flowing from the bypass into the river. At first mostly slurry was being pumped but after a few moments cleaner water began to flow from the line. This test was witnessed by START Region III, P&A Engineers representatives, and WTP operators.
3. WVDNR continues to investigate the damage to the fish population in the Tug Fork River. They requested a Natural Resource Damage Assessment (NRDA) be conducted. Since they are a Trustee, OSC Kelly advised them to contact Region III DOI and formally request the assessment.
4. The Environmental Unit of the Unified Command received the results from the Pool Sampling and are currently reviewing them to determine if dredging these areas would be feasible.
5. The Unified Command is contemplating alternatives to supply water to Fort Gay and Kermit WTP's if needed.
6. On 13 November 2000, the Kermit WTP was put back into operation. The sludge from around the intake was cleaned. After the turbidity levels decreased to 19 NTU's the water plant operator decided to reactivate the intake pumps. The plant is now in operation and running at 100% capacity.

B. Kentucky:

1. The water treatment plant in Louisa, KY is operational and supplying 100% of their customers, Big Sandy, and Ft. Gay. Louisa has more than 1 million gallons of water in storage. All advisories have been lifted. Louisa is supplying 1.3 million gallons per day.
2. Inez, KY continues to pump from the Middle Fork Creek. Production is back to the normal 1.4 mgd and they are slowly replenishing their reservoir.

C. MCCC continues to respond to the spill 24 hours a day, 7 days a week with their company and subcontractor resources. The company reports 360 personnel and contractors are responding. Federal and State agencies continue to support and provide guidance to the companies response team (ICS). Federal, state and local agencies represented on-scene include:

- Federal:** EPA ERT (Greg Powell), USCG Strike Team, U.S. DOL-MSHA, U.S. DOI-OSM, U.S. Army COE, EPA START Contractor, EPA REAC Contractor
- State:** KYDNREPC (Tom Gabbard), Roger Martin, KY Dept. of Fish and Wildlife Resources, Kentucky Dept. for Surface Mining and Reclamation (KY DSMRE), KY Emergency Management
- Local:** Martin County EMA

- D. An estimated 34,186 cubic yards of sludge/slurry material has been pumped and or hauled into impoundments located on or around the site. Ongoing operations in the Coldwater and Wolf Creek watersheds are as follows:

Coldwater Creek:

- Cleanup operations continue using lime for solidification and mechanical recovery to remove slurry/sludge from several areas along the creek. Mechanical recovery and solidification activities are as follows; solidification above and below gate 4 bridge and below Walnut Fork (CMC), slurry pumping at the Cain property cells (see table below for details) and mechanical removal of wet sludge from yards below gate 4 bridge to above the Cain property cells. Roads have been constructed into inaccessible areas to aid in slurry/sludge solidification and removal operations. Mechanical recovery continues in the yards of private residences. MCCC with the help of EPA is attempting to obtain access from private homeowners in order to remove sludge. A few homeowners are denying access. The EPA attorney will contact the homeowners attorneys to discuss the issues.

COLDWATER CREEK REMOVAL TOTALS		
**DATE	LOADS	*VOLUME (cubic yards)
11-12-00	629	13230
11-13-00	NO DATA	7155
11-14-00	605	8089
11-15-00	1257	10551
11-16-00	1217	10783

* Includes sediments from pumping activities
 ** 24 hour period ending 0600

- The 6 “cornfield” sedimentation cells that were constructed along the creek to collect slurry continue being used as solidification and holding cells. The sludge will then be transported to mountain top cells. Construction of sediment ponds “cornfield cells” 7 and 8 has been completed, utilization of the cells is pending. Currently the Cain Property sediment ponds and pumps are adequate to manage production/flow on the creek (see below for detail).
- Crews continue to mix (via 2 tractor pumps) and pump slurry and water from the original creek channel into two impoundment/sediment cells at the Cain Property using an 18" self priming pump and a large submersible pump located at a sump pit just above the Gabion weir. Crews monitor the pumps and clean debris from the sump and creek channel as needed. The slurry is treated with a flocculent to speed the

sedimentation process. Water appears to be clear from the outfall of the cells into the creek, water quality parameters including turbidity are being monitored below the Cain property discharge.

- Crews continue to divert portions the Lynn Bark Creek, a tributary to Coldwater Creek, into the Venters Branch watershed. Pumping operations began on 11/3 and run 24 hours a day. A temporary earthen dam has been place on the Walnut Fork to help control flow into Coldwater Creek. Water trucks use the dammed water to clean the roads and wash dump truck beds.
- USCG Strike Team continues monitoring particulate matter in the air from the solidification process with two DataRams along Coldwater Creek.

Wolf Creek/Big Andy Creek Tributary:

- Cleanup operations continue to use pumps and vac trucks to pump slurry from the original creek channel and to sedimentation impoundment cells. Vac trucks have been removing hay bails used as temporary sediment stops.
- Water diversion of Panther Creek and Cal Fork, tributaries of the Wolf Creek, continue.
- Crews have reenforced the County Road along the creek in preparation for an increase in the mechanical recovery. Roads have been constructed along the creek to improve mechanical recovery. Mechanical recovery continues downstream of the Big Andy/Wolf Creek confluence, at the Old Slurry pit, and along County Road.

WOLF CREEK CREEK REMOVAL TOTALS		
**DATE	LOADS	*VOLUME (cubic yards)
11-14-00	150	NO DATA
11-15-00	398	8391
11-16-00	521	8448

* Includes sediments from pumping activities

** 24 hour period ending 0600

- Crews continue to use a Hydroseeder pump and water to wash and remove sludge from the creek banks.

WOLF CREEK BANK WASHING TOTALS	
DATE	LINEAR FOOTAGE
11-12-00	3400
11-13-00	5000
11-14-00	4950
11-15-00	NO DATA
11-16-00	6220

- Crews are continue to move downstream and remove sludge from the yards of private homes.

Kermit, WV

- Kermit WTP is currently operational and pumping water from the Tug Fork into their plant for water treatment.

Ft. Gay

- Ft. Gay WTP has discontinued by-pass pumping due to blackwater entering their treatment system. The by-pass system originally installed for testing was not working properly.

E. Light Rain, Monday, November 13, 2000

- Rain gauges at the site indicated only trace amounts of rainfall..
- The Gabion weirs on Wolf Creek and Coldwater were not breached. Blackwater was not observed on the Tug Fork at the confluence of the Wolf Creek.
- Roads along Coldwater creek became hazardous and tandem dump trucks ceased hauling activities until conditions improved. Road safety is being stressed.
- Water diversion on both creeks were not interrupted during the rain event.

F. The Stream Assessment Cleanup Survey (SACS) Team continues evaluating restoration requirement for Coldwater and Wolf Creek. Initial tasks have been directed for the determination of cleanup need (if any) of the Tug Fork and Big Sandy Rivers.

G. ERT has recommended not installing pre-treatments at the water treatment plants along the Tug Fork. However, it was recommended that the temporary piping installed from the alternative water sources be winterized.

III. FUTURE ACTIVITIES

- A. Continue remediation efforts include pumping and solidifying slurry from both watersheds. Solidification to continue using lime and mechanical methods will be used to excavate the sludge.
- B. Crews will continue working downstream excavating sludge from private yards and seed for erosion control.
- C. EPA and MCCC will continue gaining access to properties along Wolf Creek and Coldwater Creek in order to maintain clean up operations.
- D. Construction on new sedimentation impoundment cells will continue.
- E. Potesta and Associates are scheduling a sludge survey from Kermit to Ft. Gay in the Tug Fork for next week.