EVENT: MULTI-REGIONAL EMERGENCY RESPONSE

DATE: NOVEMBER 2, 2000

ATTN: DOUG LAIR, EPA REGION IV
      CHARLIE KLEEMAN, EPA REGION III

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.

II. CURRENT ACTIVITIES (1700 HOURS, THURSDAY, NOVEMBER 2, 2000)

Weather: Weather conditions continue to be favorable for conducting response operations, however, visibility in the area has been greatly reduced due to forest fires in the area. The forest fires are not directly effecting the cleanup operations. There continues to be concerns over possible flooding and migration of the slurry should a significant rain event occur. A 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, WV is receiving water from Louisa WTP. The town of Fort Gay, has opened car washes and laundromats.

2. On 01 November 2000, two representatives from Potesta & Associates and one boat operator boarded the twin-engine boat. A surveying team directed the boat crew to the sample locations. Potesta & Associates utilized sonar to measure the depth of the river at each sample location. The river depth varied approximately 7
to 11 feet, the depth of the slurry varied from 9 to 11 inches. The samples were collected upstream of the lock wall between the distance of 20 and 450 feet from the edge of the lock wall. Due to safety reasons, only one attempt was made to collect a sample close to the dam. This location was approximately 50 feet upstream from the dam, but no sample could be collected due to the presence of a rock riverbed. Potesta & Associates will present their findings and sampling results to the Incident Command to determine whether the river will require dredging.

3. A joint effort is being undertaken by WVDNR and the KDFWR to conduct bioassay testing on fish while conducting time-critical biological monitoring along the waters of the Tug Fork River. Data collected from the event will be studied to investigate the current condition of aquatic life in the waterways and to determine the effects of the spill on aquatic life. An important condition that is being evaluated is the presence and thickness of the slurry coating on the fish gills.

4. Kenova, WV is supplying water to all of its customers. The Kenova WTP is treating water from its normal intake with liquid Alum and polymers. The Kenova WTP continues to supply water to the Big Sandy Water District, Don Acres, Kenova, Ceredo, Ridgelawn, Buffalo, Centerville, and Prichard. Turbidity levels in the influent remains approximately three times the normal level, but the water is treatable.

5. Kermit, WV continues to supply 100% of its customers with water through the temporary line, which draws water from a location along the Tug Fork. Kermit continues to supply water to Crum, WV.

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 with their company and subcontractor resources. 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:


State: KYDNREPC (Ralph Collins), KY Dept. of Fish and Wildlife Resources,
D. An estimated 10 millions gallons of slurry has been pumped into the impoundments. Ongoing operations in Coldwater and Wolf Creek watersheds are as follows:

**Coldwater:** Cleanup operations include pumping slurry from the original creek channel to the completed sedimentation cells constructed alongside the creek. These cells have already begun to fill to capacity and crews have begun treatment within the cells using a flocculate to speed the sedimentation process. Construction continues on three up stream and one large down stream sedimentation ponds in the Coldwater to control flow in the event of heavy rains. Additional cells continue to be constructed at the corn field and Cain property locations. Crews have also begun to connect several sedimentation cells together. Crews began to remove sludge using track hoes and dump trucks adjacent to Gate #4. Crews will begin to solidify sludge using lime before attempting to remove it. A Gabion weir has been constructed downstream of the Gate #4 bridge to control flow of the creek and filter sediments from the water.

**Wolf Creek:** Cleanup operations include use of pumps and vac trucks to pump slurry for the original creek channel and transport the slurry to sedimentation cells. Two 18 in. lines connected to 24 pumps are used to pump 1,000 gallons per minute of slurry from the creek to several cells up on top of a mountain. Flocculate is added to the cells at a rate of 6 gallons per minute to speed the sedimentation process. Decanted water from the cells is then pumped down mountain back into the creek. Two additional Gabion weirs will be constructed to control flow into the Tug Fork of the Big Sandy.

E. John Hankinson, US EPA Region IV Regional Administrator, was onsite on 11/2 to view the extent of damage and receive a debriefing of remediation activities. He was joined by Dick Green, Chief of the US EPA Region IV Waste Division, and James Bickford, Secretary of the State of Kentucky Natural Resources and Environmental Protection Cabinet.

F. Kemron Environmental Services, Inc., a subcontractor of Region 4 START, continues to perform treatability tests to identify pretreatment alternatives to remove the fines from the water prior to entering the affected municipal drinking water plants.

G. An ERT film crew is on site for video documentation of the spill and impacted areas.

III. **FUTURE ACTIVITIES**

A. Continue remediation efforts including construction of weirs in the Coldwater and Wolf Creeks. Slurry will continue to be pumped from the creeks into the sedimentation cells and mixed with the flocculate to speed sedimentation. Solidification to continue using lime and mechanical methods will be used to excavate the sludge. Pumping of the slurry into the containment cells will continue.

B. **Continue water treatability studies and perform a field test later this week.**
FRED STROUD, OSC
REGION IV EPA

ROBERT KELLY, OSC
EPA REGION III