From: Eoc, Epahq
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Subject: EOC Spot Report: Chemical Spill, Charleston WV – Update #5

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EOC Spot Report: Chemical Spill, Charleston WV – Update #5

US Environmental Protection Agency

Report as of 2145 January 11, 2014

Overview: On January 10, the President approved an Emergency Declaration for the State of West Virginia after a chemical leaked through a secondary containment area at a Freedom Industries chemical plant and into the Elk River in Charleston, WV (pop. 51,018) (NRC#1070627). The chemical (4-methycyclohexane methanol) is a flammable solvent used in the coal preparation process and is an irritant to eyes, respiratory system, and skin. The West Virginia Office of Environmental Health Services (OEHS) estimates no more than 5,000 gallons of chemical leaked in the Elk River. Based on river flow dilution, officials calculate the chemical

concentration in the water to be well below the CDC declared safe level. The spill occurred near the Kanawha Valley Water Treatment Plant. The Kanawha Valley Water Treatment Plant detected the chemical even after the increased carbon treatment effort was put in place. Freedom Industries is working to clean up the spill at the facility and in the river.

State, Local and other Federal Agency Actions: West Virginia water authorities have issued a "Do Not Use Water Notice" for 10 counties (Kanawha, Boone, Putnam, Lincoln, Logan, Clay, Roane, Jackson Cabell and Wayne) and the President's Emergency Declaration covers eight counties (Kanawha, Boone, Putnam, Lincoln, Logan, Clay, Roane, and Jackson). West Virginia American Water (WVAW) customers are told not to use tap water for drinking, cooking, washing, or bathing. Water can be used for toilets and fire emergencies. Boiling water will not get rid of the chemical. This is believed to impact 100,000 customers (300,000 people).

The State of West Virginia and the West Virginia American Water Company (WVAW) are developing a plan for flushing the system, along with sampling and analysis, that will allow residents to begin using their water as soon as possible. State and Federal (ATSDR/CDC) health officials have agreed that a level of 1 part per million (ppm) of methylcyclohexanemethanol is protective of public health and the State/WVAW will use the flushing process to assure that the 1 ppm level is achieved throughout the system. The EPA supports this approach and has offered sampling and monitoring assistance to the State during the restart efforts.

Throughout the day, WVAW continued vacuuming the mixture out of excavated pits in the tank farm area. WVAW placed a piece of plastic into the cut-off ditch downhill from the tank farm. The plastic layer should lessen the amount of mixture soaking into the soil. WVAW also added a pump to assist the vac truck in pumping the mixture out of the ditch and up the hill.

This morning WVAW's contractor was using a torch to remove the bolts on the manway cover of the tank. OSHA was on-site and stopped the operation until a wrench could be found to remove the bolts. The tanks will need to be emptied and then cleaned from the inside (permit required confined space entry). This work is currently under way for the failed tank. The two tanks on either side will undergo a similar process. Once the tanks are cleaned, they will be cut up and removed from the site. After the three tanks are removed, product trapped under the tanks' concrete pad can be vacuumed out. The tank removal will take several days.

FEMA is scaling down the Philadelphia RRC and ramping up the FEMA IMAT in the field. EPA OSCs will continue to coordinate with FEMA OPS at the EOC. DHS is bringing in their Office of Health affairs (OHA) to provide technical/scientific support for decision making.

EPA Actions: EPA OSCs are onsite and providing technical support and air monitoring support. The odor on the facility property is less than observed yesterday, but could be because of the rain and increased wind speeds. EPA conducted air monitoring earlier and mapped the readings. The difference today between total VOCs is minimally less than yesterday, but again the higher winds may be dispersing the fumes, which could account for the difference.

The EPA Water Program is working with the utility to investigate treatment options for the chemical, including additional literature research and bench scale studies at other utilities. In addition, EPA's Ft. Meade lab has started looking into lab support for the chemical analysis or finding labs that can provide support through the laboratory response network.

Media Interest: High

The HQ EOC will continue to monitor and provided updates as needed.

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