To: Travers, David[Travers.David@epa.gov]
From: Lindquist, Alan
Sent: Sun 1/12/2014 1:22:38 AM
Subject: Re: Followup on West Virgina Chemical Spill sampling results

Then, I will get back to you Monday.

Alan

From: Travers, David
Sent: Saturday, January 11, 2014 8:14:42 PM
To: Lindquist, Alan
Subject: Re: Followup on West Virgina Chemical Spill sampling results

Monday is fine

From: Lindquist, Alan
Sent: Saturday, January 11, 2014 8:08:01 PM
To: Travers, David
Cc: Ernst, Hiba
Subject: Re: Followup on West Virgina Chemical Spill sampling results

David,

If this is an urgent request, please get back to me. Otherwise I will ask my folks to look into this first thing Monday.

Alan

From: Travers, David
Sent: Saturday, January 11, 2014 2:22:45 PM
To: Lindquist, Alan
Cc: Ernst, Hiba
Subject: Fw: Followup on West Virgina Chemical Spill sampling results

Alan, would you all have any recommendations on the contaminated appliances angle for the WV spill (e.g., remediation options)? If so, please have staff send materials or emails to Kevin Tingley with a cc: to me, thanks--D

From: Travers, David
Sent: Saturday, January 11, 2014 2:16:34 PM
To: Grevatt, Peter
Cc: Workman, Rosemary; Tingley, Kevin
Subject: Re: Followup on West Virgina Chemical Spill sampling results

Let us know if we can assist in any specific way, as we're not in an official EOC mode. For now WSD is

focused on coordination with feds/WARN, situational awareness for OW managers report, and working future potential issues (locations of chem storage, contamination of appliances). For health issues, we assume SRMD with Steve Allgeier have it. D

From: Grevatt, Peter
Sent: Saturday, January 11, 2014 1:45:25 PM
To: binetti, victoria; Burneson, Eric; Miller, Wynne; Doyle, Elizabeth
Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Clark, Becki; Travers, David
Subject: Re: Followup on West Virgina Chemical Spill sampling results

Thanks Vicky. It would be helpful to know whether the CDC/ATSDR statement is draft or final. The R3 draft looks good to me. Betsy, it would be good to have your folks take on the 1PPM value. Becki, please let me know whether you think there are folks in NCEA we might want to touch base with as well. There will be considerable time pressure to finalize the Agency's statement, so whoever we involve will need to be able to respond quickly on this! Thanks, P.G.

From: binetti, victoria
Sent: Saturday, January 11, 2014 12:40:36 PM
To: Burneson, Eric; Miller, Wynne; Doyle, Elizabeth
Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Grevatt, Peter; Clark, Becki; Travers, David
Subject: RE: Followup on West Virgina Chemical Spill sampling results

FYI, CDC/ATSDR have prepared this statement:

Ex. 5 - Deliberative

They are looking for a complementary statement from EPA. This is our current Region 3 draft:

Ex. 5 - Deliberative

Ex. 5 - Deliberative

--Vicky

From: binetti, victoria
Sent: Saturday, January 11, 2014 12:29 PM
To: Burneson, Eric; Miller, Wynne; Doyle, Elizabeth
Cc: Capacasa, Jon; Arguto, William; Wisniewski, Patti-Kay; Johnson, KarenD; Grevatt, Peter; Clark, Becki; Travers, David
Subject: FW: Followup on West Virgina Chemical Spill sampling results

As you likely know, on January 9th, the West Virginia American Water Company has issued a "Do Not Use" advisory for the 200,000 plus customers of their Elk River plant, following a release from a chemical storage terminal (Freedom Industries Etowah Terminal) about 1 ½ miles upstream of their intake. The chemical in question is 4-methylcyclohexanemethanol, a foaming agent used to separate (float) fine coal particles in the coal prep/cleaning process. (MSDS is attached; the Eastman product appears to be a mixture, with MCHM being the predominant chemical.) Colleagues from the West Virginia Department of Health and Human Resources (WVDHHR) have been working with West Virginia American Water Company (WVAWC) to determine best approach to assuring water use can be restored ASAP. DuPont developed an analytic standard, with reliable detection at about 1 ppm, and have trained WVDHHR lab on the same so they can do parallel sampling/analyses with WVAWC. The most recent data available (from Thursday evening) show the concentrations in raw water just above 1 ppm, and finished water at the plant just below 1 ppm. WV DHHR and WVAMC are working on plan to include system flushing (large system, with some areas of distribution as far as 50 miles from plant), and sampling at intake, post-treatment and throughout distribution system, with locations to be determined using hydraulic DS model. The hydraulic model is also being used to guide the flushing protocol. One issue is that the process time for sampling is reported to be lengthy Ex. 5 - Deliberative

Ex. 5 - Deliberative

CDC/ATSDR have provided advice (to WV DHHR) on level that would be protective of public health, at 1 ppm (considering all exposure routs, inhalation, dermal and ingestion), based on very

limited toxicological information and assumed chemical properties. (See below.) This seems reasonable, given high LD50 for rats. Because data are so limited, CDC/ATSDR aren't comfortable estimating an acute level. The 1 ppm level has made its way into a WaterISAC report on the incident. EPA will likely be asked for concurrence.

We had limited consultation with Steve Allgeier (OGWDW TSD, Cincinnati), who provided good treatment advice (and is working with others on investigating treatment options) and offered unofficial opinion that 1 ppm seemed reasonable, for short term exposure. Note that WVDHHR and WVAWC are considering a strategies including phased relaxation of restrictions, e.g., from ("Do Not Use" to "Do Not Drink"), and geographically relaxing restrictions as areas are "cleared" (for example, concentrations in the distribution system nearest the treatment plant should decline soonest, as release from plant is controlled). The target of 1 ppm will be used to guide these decisions. Ex. 5 - Deliberative

Ex. 5 - Deliberative

Additionally, last evening WV Department of Environmental Protection ordered Freedom Industries to empty the remaining 14 tanks on site; 2 of those (holding MCHM) have been emptied, as was the leaking MCHM tank. Those three tanks will also be dismantled to examine structural integrity and potential leakage. The remaining tanks contain raw glycerin, finished glycerin (raw with water), calcium chloride (28%, 35%, and 38%), lignin, RDC777 (road dust control agents), and weak salt. As we learn more, we will share information if there are concerning chemicals in those tanks.

Please call me if you want to discuss (Ex. 6 - Personal Privacy . Thanks.--
Vicky

From: Werner, Lora
Sent: Friday, January 10, 2014 7:54 AM
To: Johnson, KarenD; Wright, Dave
Cc: Markiewicz, Karl
Subject: Fw: Followup on West Virgina Chemical Spill sampling results

Fyi

From: Bixler, Dee <Dee.Bixler@wv.gov>
Sent: Friday, January 10, 2014 7:47:39 AM
To: Cseh, Larry (ATSDR/DTHHS/OD); Frazer, Teresa E
Cc: Werner, Lora S. (ATSDR/DCHI/EB); Holler, James S. (Jim) (ATSDR/DTHHS/OD); Murray, Ed (ATSDR/DTHHS/OD); EOC Report (CDC); Haddy, Loretta E; Ibrahim, Sherif M
Subject: RE: Followup on West Virgina Chemical Spill sampling results

Thanks. This has been shared with health incident command, poison control and relevant partners. We greatly appreciate your support through this.

-dee

Danae Bixler, MD, MPH

Director, Infectious Disease Epidemiology

West Virginia Bureau for Public Health

From: Cseh, Larry (ATSDR/DTHHS/OD) [mailto:loc3@cdc.gov]
Sent: Fri 1/10/2014 7:09 AM
To: Frazer, Teresa E; Bixler, Dee
Cc: Werner, Lora S. (ATSDR/DCHI/EB); Holler, James S. (Jim) (ATSDR/DTHHS/OD); Murray, Ed (ATSDR/DTHHS/OD); Cseh, Larry (ATSDR/DTHHS/OD); EOC Report (CDC)
Subject: Followup on West Virgina Chemical Spill sampling results

Teresa,

Last night we discussed a screening of 1 ppm, we continue to believe will be protective of public health. The levels reported by American Water for samples collected around 17:00 on January 9, 2014 were between 1.2 and .6 ppm. We do not anticipate any adverse health effects from these levels.

That said because of the odor and not knowing an odor threshold we would also recommend that the system or residents be told to flush their systems until it is no longer observed. ATSDR is willing to continue to support you with data review and consultation as you need.

Larry

CAPT Larry F. Cseh, R.S., MSA

US Public Health Service

Emergency Response Coordinator

ATSDR, DTHHS, ERP

770-488-3335

Cell 404-791-7215

Loc3@cdc.gov

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

4770 Buford Hwy, mailstop F-58

Atlanta, GA 30341