Message

From: Nickle, Richard (ATSDR/DTHHS/OD) [ran2@cdc.gov]
Sent: 10/30/2017 2:14:38 PM
To: Werner, Lora [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=921f9f156035403fa605c142a287cc1a-Lwerne02]
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Subject: RE: Parkersburg WV Warehouse fire.

Below my signature is the clean copy. We may have additional revisions coming from in-house.

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- *Ask for the ATSDR Duty Officer*

Beginning shortly after the fire started on October 21st, EPA and the State have been monitoring environmental conditions around the Ames Warehouse fire at Camden and Broadway in Parkersburg. Additional air monitoring was conducted by the Center for Toxicology and Environmental Health (CTEH) working for Wood County authorities beginning the Monday after the fire started. Because information on the contents of the warehouse has not been certain, this air monitoring has focused on particulate matter less than 10 micrometers in diameter (PM10) and less than 2.5 micrometers (PM2.5) to track the smoke from the fire. These particulates are small enough to be breathed deep into the lungs and are usually a good indicator of potential health issues. Additional measurements have been made of common breakdown products of plastics and carbon monoxide. Carbon monoxide is a measurement that can be used to evaluate any fire.

The primary concern for health officials has been "spikes" of both PM10 and PM2.5. These spikes have been above 24 hour air quality standards for open air for brief periods of time during the day or night. You can learn more about air quality standards at https://www.airnow.gov/; look for information on the Air Quality Index (AQI) on the right side of the page. Many of the spikes have occurred after midnight until just before dawn, usually lasting for periods of less than an hour up to about 4 hours. Then the concentrations dropped below the air standards. Because of wind conditions and the hilly nature of the ground around the warehouse, it is not known how long these higher concentrations have lasted in any given area away from the sampling locations. Local authorities in consultation with state and federal public health and environmental officials made the recommendations to protect public health, including advice on sheltering in their homes and avoiding the smoke. West Virginia officials consulted frequently with their counterparts in Ohio to make sure everyone in the area possibly affected by the smoke from the fire were made aware of the recommendations to protect themselves. Air quality in the area of the fire have improved dramatically over the weekend of Oct. 28-29.

Smoke from any fire irritates the lungs, nose, and throat. Individuals with pre-existing respiratory and cardiac conditions are more sensitive to the effects of the smoke from this fire. From what we have seen in the environmental data so far, once exposure to the smoke from this fire has stopped, any symptoms should subside fairly quickly. If any individual has symptoms that persist, they should consult first with their personal doctors because your doctor knows your personal health better than anyone else. Other

professionals through the local hospitals, regional poison control centers, and public health agencies are available to your doctor to help them understand the effects of the smoke in order to help you.

There have been strong plastics odors as well as typical combustion odors in areas where the smoke has been. Information on what would be causing these odors is not known. The public health implications of these odors cannot be determined until additional information is available. However, strong odors in air can cause symptoms in people. Some people are more sensitive to environmental odors than others. In general, as the smells from the smoke increase, more people may experience symptoms. Symptoms from odors vary based on your personal sensitivity to the odor. Young children, the elderly, and pregnant women may be more sensitive to odors than other people. In general, the most common symptoms from odors are headaches; nasal congestion; eye, nose, and throat irritation; nausea, and cough. People more sensitive to odors can experience chest tightness, shortness of breath, wheezing, heart palpitations, nausea, drowsiness, and mental depression. These symptoms generally occur at the time of exposure and tend to subside quickly when the odors go away. The intensity of these symptoms depend on the concentration of the odor in air, how often you smell it, and how long you smell it. Avoiding the smoke and the odors when you can should reduce your reaction. You can learn more about odors and their health effects at https://www.atsdr.cdc.gov/odors/index.html

West Virginia Health and Ohio Health initiated a process called syndromic surveillance through the local hospitals. Syndromic surveillance is a means of tracking signs and symptoms of exposure to smoke. From what we have learned so far, people in the areas potentially affected by the smoke have done well protecting themselves following the advice from local officials. The need for additional studies is being considered. If it is determined that there is a need or benefit for additional studies, state and federal health agencies will work through local authorities to conduct those studies. When additional information on the contents of the warehouse and the air and water quality becomes available, a better appreciation of the potential health effects of this fire can be made. This additional information should help with the decision for any additional studies.

The health and environmental professionals working on this fire will continue to work together until we are confident that the community concerns are addressed.