NARRATIVE SUMMARY

On October 21, 2017 Saturday morning at 1230 AM, Parkersburg fire crews responded to a fire at the Intercontinental Export and Import Company - Plant #1 on Camden Avenue in Parkersburg West Virginia. The facility is a warehouse housing many plastics-related and other unknown materials. The county had the lead in the incident command, and hired an environmental contractor (CTEH) to conduct air monitoring and sampling. CTEH collected roving realtime air monitoring for particulate matter and field air monitoring data for other constituents including carbon monoxide, chlorine, and sulfur dioxide. At the request of WV DEP, in addition EPA deployed four particulate air monitors around the perimeter of the fire, and began collecting data on October 22, 2017 (Sunday). ATSDR R3, ATSDR R5, and DTHHS ERS coordinated with EPA, WV state and local health, and OH state and local health. The Ohio EPA collected summa canister samples on October 23, 2017. The U.S. EPA collected summa canister samples on October 26, 2017. Air quality was impacted in both WV and across the river in OH.

On October 27, 2017, ATSDR sent an analysis of the particulate matter data to state and local officials that had been received to date. On October 31, 2017, ATSDR sent a public health update to state and local officials in West Virginia and Ohio.

Current Status

The fire was declared extinguished on October 29, 2017. ATSDR received preliminary air sampling data from CTEH on October 30, 2017. Summa air sampling data from EPA and Ohio EPA was received on November 6, 2017. Also, an inventory list from the property owner was received on November 8, 2017.

DISCUSSION

ATSDR has reviewed the air sampling data submitted by CTEH, EPA, and Ohio EPA.

Acrylonitrile ranged from 0.1 to 0.16 ppb in the Ohio EPA Lowes Parking Lot and John St samples which are elevated above the CREG for cancer risk of 0.01 ppb but are below the chronic reference concentration (Rfc) of 0.9 ppb. ATSDR estimates that continuously breathing air containing 0.1 ppb would result in not greater than a one-in-a-hundred thousand increased chance of developing cancer over a lifetime.

Benzene is slightly elevated above the chronic minimal risk level (MRL) of 3 ppb at sample location AA-01 (3.6 ppb). Detected levels of benzene are also slightly above the CREG of 0.04 ppb at all the sample locations but less than acute and chronic MRLs. Detected concentrations of benzene in the CTEH samples ranged from 0.85 – 2.2 ppb which are slightly above the CREG of 0.04 ppb but are less than ATSDR MRLs. ATSDR estimates that continuously breathing air containing 4 ppb would result in not greater than a one-in-a-ten thousand increased chance of developing cancer over a lifetime.

Carbon tetrachloride (0.11 – 0.3 ppb) is above the CREG of 0.03 ppb at AA-01, AA-05, and the John St locations but is less than the intermediate and chronic MRLs of 30 and 16 ppb, respectively. ATSDR estimates that continuously breathing air containing 0.3 ppb would result in not greater than a one-in-a-hundred thousand increased chance of developing cancer over a lifetime.

Chlorobenzene showed detections ranging from 1.5 – 32.3 ug/m^3 at AA-01 and AA-05 sample locations. There are no standard comparison values for chlorobenzene. During the Deepwater Horizon response in 2010, ATSDR developed an incident specific comparison value. That chlorobenzene comparison value was based on an animal study reported in a 2008 IUCLID report with health effects observed at 1.5 mg/m^3. These detections are roughly 2 orders of magnitude less than the concentration known to cause health effects in animals.
Sample location AA-01 in the EPA samples represents the monitoring station closest to the site. Concentrations of the compounds listed above were highest at the site monitoring station which would be expected. Sample location AA-05 represents background levels. If this is accurate, it can be assumed that background levels of benzene are 1 ppb, carbon tetrachloride 0.2 ppb, and chlorobenzene 0.3 ppb based on the sample results.

Smoke from any fire irritates the lungs, nose, and throat. Odors can also cause some additional health effects such as nausea, cough, headaches, and nasal congestion. The analysis of the data received by ATSDR indicates that the chemicals detected in the air during the fire are not likely to cause health effects other than the symptoms noted above. Since the fire has been extinguished, symptoms related to this fire should not be experienced or observed at this time.

Community Concerns:

- Particulate matter and debris from the fire are the primary concern at this point. Any pervious materials such as clothing and hats that were outside during this event should be laundered prior to wearing.
- Consider washing household pets that spent time outdoors during this event. Farm animals should be safe, as well.
- Within the home, wipe down any horizontal surfaces that could have been affected by the smoke and particulate matter from the fire with water and/or soap.
- The vegetables and fruits from outdoors should be considered safe to eat after washing them thoroughly as you would normally.
- Any outdoor water should be safe, too; if there is a layer of soot on the surface, this will not be a health concern, however, if it still concerns you, empty the container.
- Community members still experiencing respiratory symptoms should talk to their health care providers.

RECOMMENDATIONS

- ATSDR will continue to review any additional environmental data as requested by federal, state, or local officials at the scene or during recovery operations. ATSDR will continue to coordinate our reviews with Federal, state, and local public health and environmental authorities.

- ATSDR recommends that samples of the ash be collected to determine chemical composition.