February 6 Update on Mon Valley Air Quality and Status of Clairton Coke Work Repairs

PITTSBURGH – As part of the Allegheny County Health Department’s (ACHD) commitment to providing the public additional information related to air quality in the Mon Valley, and the status of the Clairton Coke Works, Dr. Karen Hacker provided the following information on activity this past week:

- Allegheny County has experienced very unusual weather conditions. Below-zero temperatures and snow changed to 50+ degree temperatures in a matter of days. These temperature changes caused several, lengthy and strong surface temperature inversions. Inversions are when a warm air mass sits above a colder air mass, trapping the colder air mass below.

- Beginning on the evening of February 1 and lasting throughout the afternoon of Monday, February 4, there were multiple inversions across the county. These inversions, which trap pollutants close to the ground, increased PM 2.5 levels at several monitors over this span of time. One monitor, Liberty, exceeded the 24-hour federal PM 2.5 standard (greater than 35 micrograms) February 2 through February 4. Already underway, ACHD will submit its PM 2.5 State Implementation Plan this summer for consideration. The plan lays out how exceedances of PM 2.5 will be addressed.

- Despite the weather, there were no SO₂ exceedances at the Liberty or Clairton monitors. There was one SO₂ exceedance (.082 ppm) that occurred on Monday evening in the 10 p.m. hour at the North Braddock monitor. The North Braddock exceedance raises concerns about flaring at US Steel’s Irvin Works, which is part of mitigation strategies for the Coke Works breakdown.

  - ACHD began including the North Braddock monitor in the daily SO₂ report in mid-January, after questions and concerns from the Braddock-area communities about potential impacts from the repairs being made at the Clairton Coke Works. Historically, there have been few SO₂ exceedances at the North Braddock monitor; however, given the recent weather conditions, there was a potential.

- With Monday’s exceedance at the North Braddock monitor, there have been a total of nine (9) hourly SO₂ exceedances at all monitors serving the Mon Valley since the December 24 fire at the Clairton Coke Works:

  - Liberty monitor: 7 (two on 12/26, one on 12/28, one on 1/2, one on 1/3 and two on 1/8)
  - North Braddock monitor: 2 (one on 1/7 and one on 2/4)
  - Clairton monitor: 0

  Please note that for EPA reporting purposes, it is considered only one exceedance even if there are multiple hourly exceedances in a 24-hour period. Exceedances are based on any given monitor in a calendar year. Therefore, based on EPA reporting criteria, Liberty has exceeded five times and North Braddock has exceeded twice in since the December 24 fire at the Clairton Coke Works.

- ACHD staff are continuing to review the data regarding Monday’s SO₂ exceedance at the North Braddock monitor. An enforcement action is forthcoming.

- ACHD received several questions regarding the Air Quality Index (AQI) this past week because of alerts that showed on smart phones in the area. The AQI measures how clean or polluted the air is, and what
associated health effects might be of concern. While the AQI is a helpful tool, it is based on PM 2.5 and ozone, which are regional pollutants, and numbers are based on projections and recent trends. The AQI is not actually reporting the most current data from ACHD monitors, and it is not based on SO₂.

- The public has expressed concerns with H₂S (Hydrogen sulfide) odors and information contained in the data from local monitors. H₂S is considered a nuisance pollutant which is not a federal criteria pollutant. During periods of inversions, there will be a higher incidence of H₂S odors. ACHD’s current efforts to amend its coke oven regulations are expected to deal with fugitive emissions which would also lower H₂S odors.

- ACHD air quality inspectors are continuing to monitor repair progress at the Clairton Coke Works daily. U.S. Steel is now publicly sharing those updates on its own site as well: http://www.clairton.uss.com.

ACHD will continue to provide a daily 3 p.m. posting about the monitored data on SO₂ from the prior 24-hour period. Those updates are being posted on the department’s website and Facebook page, as well as being sent to subscribers to Allegheny Alerts. These same mediums will be used to notify the public of any emerging issues.

Residents, especially sensitive populations, should continue to be aware of the potential for future PM 2.5 and SO₂ exceedances. Anyone experiencing health issues related to air quality should contact their primary care provider as soon as possible. In case of an emergency, dial 9-1-1 or go to the emergency room.

Anyone experiencing health issues or concerns related to this incident is also asked to report those to the Health Department. Residents can call the department at 412-687-ACHD (412-687-2243), or submit information through an online contact form.

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