

EPA is Conducting Air Monitoring In Bristol Area



June 2021

Key Information

- In January 2021, the Virginia Department of Environmental Quality (VADEQ) began coordination with EPA to provide technical support related to odor complaints in the Bristol area.
- As a result of continued odor complaints, EPA is currently conducting real-time air monitoring in both Bristol, Virginia and Bristol, Tennessee to determine if the odors contain hazardous substances, and if those substances are found at levels that could cause a concern for human health or the environment.
- VADEQ will also collect air samples for laboratory analysis to be used in the health evaluation.
- Monitoring and sampling data will be reviewed by EPA, the Agency for Toxic Substances and Disease Registry (ATSDR), and other coordinating agencies to determine if the levels found pose a risk to human health.

Current EPA Activities

EPA is coordinating with VADEQ, the Tennessee Department of Environment and Conservation (TDEC), ATSDR, both Bristol City Managers and Public Works Departments to investigate odor complaints in the area. EPA's investigation is not linked to any particular facility or industry, but rather focusing on gathering real-time air data in the Bristol area. The agencies worked together to pick favorable locations for air monitors.

Location of Air Monitors

Locations for the air monitors were selected based on a number of factors, including areas where there are frequent odor complaints as documented by VADEQ, both cities, as well as the "Smell MyCity" smartphone app. *(continued on next page)*

What compounds will EPA be monitoring with the instruments?

- Hydrogen sulfide
- Volatile organic compounds (VOCs)
- Oxygen
- Ammonia

Weather data such as wind speed, direction, humidity, and temperature will also be tracked via the monitors. Monitoring weather conditions may be helpful in understanding if certain conditions contribute to odors.

The air monitors began operating on June 8 and will run continuously for two weeks. The monitors are being remotely monitored and record data 24 hours a day. EPA personnel will maintain notes of any trends or abnormalities that may occur.

To ensure proper function, the monitoring equipment will be checked on a routine basis, generally every 7-10 days, and re-calibrated as needed. During these times, EPA will also conduct mobile air monitoring in the evening and/or early morning hours in and around neighborhoods where odor complaints are common.

As the agencies gather information, additional compounds may be added to the monitoring program.

After identifying geographic areas for the monitors, specific locations with favorable conditions for collecting quality data were identified. These include locations with access to power and locations easily accessible, yet secure enough to avoid tampering, theft or vandalism.

Process for Air Sampling

VADEQ will collect appropriate air samples at the designated monitoring locations, as needed, typically in the evening when high odors are usually reported. These air samples will run for a minimum time of 8-hours to produce a sufficient data set to be used for public health evaluation purposes. The dates, times, and locations for these samples will be partially determined by the real-time data collected by the monitors.



Example of air monitor used for this investigation.

Next Steps

- EPA and the coordinating agencies will evaluate the monitoring and sampling data after a two-week period to determine if additional locations and/or compounds should be added to the investigation. EPA may choose to continue the monitoring for another two-week period based on this evaluation.
- Upon completion of the data collection period, EPA will provide the data to ATSDR to assist in evaluating if the odors contain hazardous substances and if they pose a risk to human health.
- Once the data has been reviewed and evaluated, it will be made available to the public.
- ATSDR will be available to answer health-related questions.
- EPA will work closely with the agencies to determine if additional investigation is needed.

Can environmental odors make me sick?

Everyone reacts to odors differently. Some people are more sensitive to environmental odors than others. When you are more sensitive to an odor, you may smell the odor in the air, even at very low concentrations. In general, as concentration levels increase, more people will be able to smell the odor. The air monitoring equipment being used by EPA can detect compounds at very low levels, which will help us understand the air quality concerns in this community better.

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