



EPA Response to BP Spill in the Gulf of Mexico Monitoring Air Quality Along the Gulf Coast

In response to the BP oil spill, EPA monitored air, water, sediment, and waste generated by the cleanup operations. Ongoing response and restoration efforts are posted to RestoreTheGulf.gov.

While emergency response data collection has ended, results continue to be available on this site. Any new data will continue to be posted to this site, and data will continue to be available here for the foreseeable future.

Much of the content of this site continues to be available for historical and information purposes, but we are no longer updating these pages on a regular basis.

EPA has been monitoring the air at multiple sites on shore along the Gulf Coast. The purpose is to see if spill-related pollutants are present in the air at levels that might cause health problems for people onshore in the Gulf region. EPA has been monitoring for pollutants that:

- can evaporate from fresh crude oil
- can evaporate from weathered oil;
- came ashore from burning oil out at sea

EPA has also monitored onshore air to determine whether [chemicals in the dispersants used offshore](#) are reaching onshore air.

[Learn about odors from the spill.](#)

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What air pollutants have been monitored?

1. **Air pollutants from the oil that may drift into onshore air**
 - Many **volatile organic compounds (VOCs)** are associated with oil, gasoline and other petroleum products. Some VOCs have a "gas station-like" odor. Increased VOC levels in the air may lead to increases in ground-level ozone. [Learn about ground level ozone](#)
 - [Learn about VOCs](#) | [View reports on an interactive map](#)
 - **Polycyclic aromatic hydrocarbons (PAHs)** are a group of semi-volatile organic compounds (SVOCs) that are present in crude oil, are produced by burning fossil fuels, and remain in "weathered oil" after VOCs have evaporated. Some of the PAHs we would expect to find as a result of the oil spill have a "tar-like" or "oily" odor. [Learn more about PAHs](#) | [View reports on an interactive map](#)
2. **Air pollutants from burning oil in the Gulf that could have drifted into onshore air (oil burning operations have now ceased)**
 - **Particle pollution.** EPA measures two sizes of particulate matter, also called particle pollution: fine particles (PM_{2.5}), which are smaller than 2.5 micrometers in diameter; and coarse particles (PM₁₀), which are smaller than 10 micrometers in diameter. [Learn more about particle pollution](#) | [View reports on an interactive map](#)
 - **Polycyclic aromatic hydrocarbons (PAHs)** are a group of semi-volatile organic compounds (SVOCs) that are present in crude oil and that form when oil, coal, gas, wood, garbage, or other organic substances are burned. [Learn more about PAHs](#) | [View reports on an interactive map](#)
3. **Air pollutants from dispersants that may drift into onshore air**

EPA has monitored the Gulf shore air for two key compounds in the dispersants used to break up oil from the spill.

 - 2-butoxyethanol: [Learn more about this compound.](#)
 - dipropylene glycol monobutyl ether
4. **EPA has also monitored for hydrogen sulfide (H₂S)** which is associated with some oil and natural gas extraction. The oil being spilled in the Gulf, however, is called "sweet," a

Government Response

- RestoreTheGulf.gov: official federal government site for spill response and recovery
 - [File a claim](#)
 - [Report a concern](#)
 - [Volunteer](#)
 - [Hotlines and phone numbers](#)

Other federal government information:

- Worker health and safety:
 - [from OSHA](#)
 - [from CDC](#)
- [CDC review of EPA data for possible adverse health effects](#)
- [OSHA sampling data](#)
- [White House response site](#)
- [NASA satellite imagery of the spill](#)
- [Sign up for text message alerts](#)

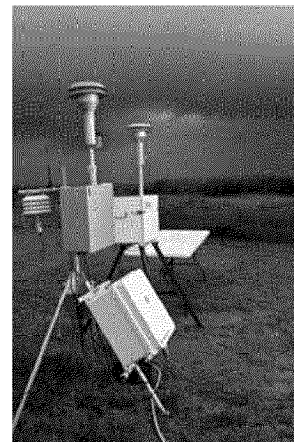
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Air monitoring station near Grand Isle State Park, Grand Isle, Louisiana.

term applied to oil with low H₂S. Hydrogen sulfide can also come from marshes and sewage treatment plants, and decaying organic materials and animals. H₂S has a "rotten egg" odor.

[Learn more about H₂S](#) | [View reports on an interactive map](#)

What are the possible health effects from breathing these air pollutants?

Odors and short-term effects: Spill-related pollutants may be contributing to odors in areas on land near the water and may cause short-lived effects like headache, eye, nose and throat irritation, or nausea in sensitive individuals in these areas. People may be able to notice odors at levels well below those that would cause serious health problems. These effects should go away when chemicals dissipate or when a person leaves the area. [Learn about odors from the BP spill.](#)

Long-term effects For some chemicals, exposures to high enough levels, and/or exposures over an extended period of time, such as days or months, may cause serious health problems, including lasting effects on the nervous system or cancer.

Based on monitoring to date, EPA has not seen onshore levels of pollutants that are of significant concern for long-term health effects.

What should I do if I feel sick?

Odors from the oil spill may cause symptoms such as headaches or nausea. For your own comfort, limit your exposure to the odor by staying indoors. To the extent possible, close windows and doors, turn your air conditioner on and set to a recirculation mode. If you are experiencing severe incidents of nausea or other medical issues, please seek care as soon as possible.

[Learn more about odors from the spill.](#)

To reach medical support at the Poison Control Center, please call 800-222-1222

To report an odor please call 866-448-5816

Where can I find out about the air quality in my area?

Since late April, EPA has been monitoring and sampling the air at multiple sites along the Gulf Coast. EPA currently has fixed monitors in Alabama, Louisiana, Mississippi and Florida. EPA has also conducted mobile air monitoring. [View a map of monitoring and sampling locations and view results.](#)

How has EPA monitored and sampled for air pollutants associated with the BP oil spill?

EPA has used a number of different types of monitors to measure what's in the air and in what quantities. Specifically:

- Existing fixed-site monitors that are in place as part of the nationwide monitoring network. These monitors record fine particle (PM_{2.5}) and ozone levels that are used to calculate the Air Quality Index (AQI) values.
 - [Learn more about the AQI](#)
 - [Current air quality conditions and forecasts along the Gulf Coast](#)
 - [AIRNow real-time air quality data around the country](#)
- Temporary fixed monitors set up in specific areas in response to the spill. These additional PM_{2.5} monitors were deployed to supplement the fixed-site continuous monitors.
- Monitors that can be moved to different locations to respond to odor complaints
- Mobile monitoring using EPA's Trace Atmospheric Gas Analyzer (TAGA) buses that provided initial assessment of air quality and EPA's remote-sensing aircraft known as ASPECT (Airborne Spectral Photometric Environmental Collection Technology) that collected air monitoring data and provided aerial photographs of the oil slick.
 - [Learn more about TAGA monitoring](#)
 - [Learn more about ASPECT monitoring](#)

When did EPA start monitoring air quality in the Gulf states?

EPA responders were on the ground with portable monitoring devices starting on April 28, 2010. EPA's twin engine aircraft, ASPECT, was deployed on April 29th to collect air sampling data and provide aerial photographs of the migrating oil slick. EPA began oil spill specific air monitoring from our TAGA buses on April 30, 2010.

Last updated on Thursday, February 14, 2013