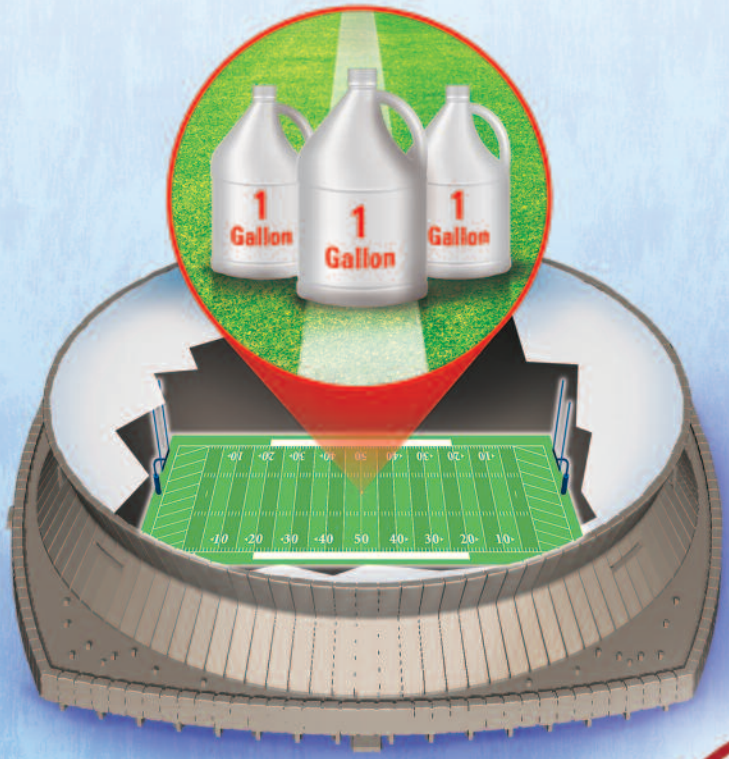
Fence Line Monitoring

Chalmette Refining is committed to ensuring that our facility operates safely, reliably and in an environmentally responsible manner at all times. Our highest priorities include the safety and health of our employees, our contractors, and the people who live and work near our operations.

What is the Fence Line Monitoring Program?
In December of 2015, the EPA (Environmental Protection Agency) issued a new regulation requiring refineries to conduct fence line monitoring of benzene concentrations beginning in January 2018. This new regulation is commonly referred to as the "Refinery Sector Rule". This "Rule" applies to 142 U.S. refineries.

EPA's stated purpose for fence line monitoring is simple: to ensure the effectiveness of the existing refinery emission controls by requiring refiners to monitor the concentration of benzene along the facility boundary and minimize these emissions, if any.

What is benzene?
Benzene is a colorless, sweet-smelling, naturally occurring chemical found in crude oil. It is primarily used as a raw material or solvent by the chemical and pharmaceutical industries to manufacture plastics, rubbers, dyes, inks and pharmaceuticals. The EPA selected benzene because it naturally exists in crude oil and can be tracked through the entire refining process.



The Louisiana Superdome's volume is roughly 1,000,000,000 gallons, so three one-gallon containers inside the Superdome equate to 3 parts per billion.

How do the monitors work?
The monitors are metal tubes filled with a sorbent material, generally carbon-based, with one end of the tube open to the atmosphere over a two week period. This sorbent material is exposed to the air, and benzene, if any, is captured (or absorbed) within the sorbent. After the required two-week monitoring cycle, the tubes are replaced with "fresh" tubes and analyzed at a lab to determine the benzene concentration, if any.

It is important to note that the metal tubes may also collect readings from sources that are outside the refinery such as roadways, neighboring facilities, or marine traffic. These outside sources may have a negative impact on a refinery's "Action Level" readings.

How many monitors does Chalmette Refining have?
Chalmette Refining has 17 monitors along the refinery's fence line. Over the course of 2018, seven additional monitors (AIRHShark monitors) were independently and proactively installed to provide additional data, based on wind direction.

What is the Refinery Sector Rule Action Level?
The EPA set a concentration of 9 µg/m^3 (micrograms per cubic meter - annual average) as the "Action Level" for the fence line monitoring program. So, any readings above the 9 µg/m^3 level require a refinery to "take action" to improve the level.

9 µg/m^3 equates to 2.8 parts per billion, or 2.8/1,000,000,000. To illustrate this, the Superdome's volume is roughly 1,000,000,000 gallons, so three one-gallon containers inside the Superdome equate to 3 parts per billion. *(See the graphic at left.)*

The EPA's "Action Level" of 9 µg/m^3 does not mean there is a health risk to the public, nor is it a measure of benzene levels in the community. The EPA put this rule into place so all 142 U.S. refineries can monitor emission sources and fix any issues. Therefore, exceeding the EPA's benzene "Action Level" is not a violation.

The Louisiana Department of Environmental Quality's (LDEQ) "Action Level" is 12 µg/m^3 (micrograms per cubic meter — annual average).

So, what are Chalmette Refining's results?
Chalmette Refining's "Action Level" is below the 12 µg/m^3 (micrograms per cubic meter - annual average) set by LDEQ. Over the course of the 2018 sampling year, Chalmette Refining monitored the "Action Levels" set by EPA's Refinery Sector Rule. As a result, any issues found were analyzed and corrective actions taken.

Chalmette Refining®

www.chalmetterefining.com
Community Hotline: 504-281-1212