



Community Update

April 2019

What happened during the early February odor incident?

On Feb. 2 and 3, the Detroit refinery experienced a release of natural gas (similar to what is burned in furnaces) and propane (similar to what is burned in a gas grill) from one of its flares, causing an odor in the area.

Readings from our air monitors, as well as the U.S. Environmental Protection Agency (EPA), confirmed no substances exceeding health thresholds in neighborhoods at any time, and they were below the EPA's Acute Exposure Guidelines. We apologize for the odor and inconvenience.

In the interest of transparency with our neighbors, we would also like to provide a detailed look at how this incident took place, and our response to it.

Jan. 30

- Due to extreme cold, the company that provides the refinery's hydrogen and steam had to shut down abruptly. This forced the refinery to shut down about half of its operations.

Feb. 2

- This was the first day above freezing after the extreme cold, and we discovered a pipe was leaking propylene and propane. Emergency responders immediately began working to stop the release.

- We notified local emergency responders, updated our website (detroitrefinery.com), and began air monitoring.

Key things to know

- Odors were caused by mercaptans, which can be smelled at very low concentrations.
- The U.S. EPA confirmed our air monitoring results, which showed no substances exceeding health thresholds in neighborhoods at any time, and they were below the EPA's Acute Exposure Guidelines.
- We kept emergency responders and regulators updated on the release at all times. We also informed local elected officials.
- We provided 10 notifications to the community throughout the incident and our response.

What are mercaptans?

Mercaptans are substances that are added to natural gas to give it an odor that people can easily detect. Natural gas doesn't have an odor, and therefore can be dangerous if people can't smell it and take necessary corrective actions.

Mercaptans are used in natural gas because it can be smelled at very low concentrations. Therefore, people can detect the smell long before it reaches dangerous levels.

- This release was stopped by 5 p.m.

Feb. 3

- At about 3 a.m., we received new odor complaints. We determined that some gases being sent to a flare were escaping before being combusted by the flare.

- The odor was caused by mercaptans (see box, below left, for more information).

- While we took steps to be able to shut down the flare safely, we worked with the U.S. Environmental Protection Agency, the Michigan Department of Environmental Quality, and the city of Detroit's

Buildings, Safety Engineering and Environmental Department on a community air-monitoring plan.

- We also notified the community through our website (detroitrefinery.com), and alerted neighbors via text message, voice message and email (for those who have signed up on the website to receive those alerts).

- From the time the release began, we provided a total of 10 notifications to the community via the website and the text, voice and email alerts.

- Throughout the release incident, we kept regulatory and emergency-response officials informed of our progress and made our air-monitoring results available to

them. We also informed local elected officials of the situation and the status.

We have asked the city of Detroit for a waiver from its Bulk Solids Storage ordinance — here's why

The city of Detroit passed an ordinance that requires, among other things, that companies storing bulk solids cover those materials. We share the city's desire to prevent dust from affecting communities, which is why we would like to clarify some points. First, we have never stored bulk materials along the Detroit River. The controversial piles of petroleum coke along the river several years ago belonged to other companies, and the way they stored petroleum coke is very different from the way we handle it on our property.



with none of the controls we have in place at our facility.

Our neighbors have serious and legitimate concerns about pollution, and we agree. Where neighborhoods and businesses have grown up around industrial facilities, we continually work to reduce our environmental footprint. At Marathon Petroleum, we take this responsibility seriously. Over the last 20 years — even while we have expanded our operations — we have reduced our emissions by more than 75 percent. In fact,

within a two-mile radius, our refinery emissions represent only 3 percent of the total. The remaining 97 percent comes from other industries that have also been here for decades — steel manufacturing, power generation, automobile manufacturing, and more.

Because we want our neighbors to know how we operate, we have made available a detailed fact sheet about our petroleum coke handling, and exactly what provisions of the city's ordinance we believe we are already addressing. You can find this fact sheet at detroitrefinery.com, and you can also find some of this information below.

Sincerely,
Dave Roland, Refinery Manager

Another thing to keep in mind is that we are not asking for a variance in order to change our operations. Our petroleum coke has always been stored entirely on our property, surrounded by 30-foot high walls, kept constantly moist with a sprinkler system, and kept covered throughout its transportation and processing. We even require trucks that load petroleum coke on our property to do it in an enclosed building, have their loads covered, and we wash their wheels before they leave.

Unfortunately, that level of care is not always the case in southwest Detroit. Throughout this area, other companies continue to use open-air storage of bulk materials,

Some of the Detroit refinery's fugitive dust control and minimization practices:

Coke Pit and Wall – Petroleum coke generated from the refinery coker unit is staged in a pit, which is surrounded by 30-foot tall walls to prevent wind erosion. Coke height is maintained below the height of the wall. The coke has a high surface moisture content when it's discharged from the coker unit drums to the pit.

Coke Pit Sprinkler System – The sprinkler system is used when needed to increase the moisture content of the coke.

Enclosed Coke Transfer System – This transfer system is fully enclosed and all air is filtered through bag houses in both the load-out building and crusher building.

Truck Load-out Building – The loading of coke into trucks for off-site transport occurs in an enclosed building with an air curtain and bag house filter.

Vehicle Covers – Coke transport trucks must be covered before leaving the truck loadout building.

Truck Wheel Wash System – Prior to exiting the refinery truck load-out building, trucks pass through a wheel wash system designed to remove excess dust from the wheels, lower section of the trailer, and the rear of the trailer.

Visible Emissions Monitoring – Visible emissions observations are conducted by the coke handling operators daily to confirm that the fugitive dust program is properly minimizing emissions from the coke processing and transport operations



Refinery Hotline

Questions? Concerns?

Call (313) 297-MARA
(6272)

