

Risk and Technology Review - Petroleum Refineries

Fact Sheet for Communities

On September 29, 2015, the Environmental Protection Agency (EPA) issued a final rule that will significantly improve air quality in neighborhoods near petroleum refineries by further controlling toxics air emissions and requiring continuous fenceline monitoring of the toxic air pollutant benzene. This rule will significantly reduce visible flare emissions and upset emission events, and for the first time provide important information about refinery emissions to the public and neighboring communities by requiring refineries to monitor emissions at key emission sources within their facilities and around their fencelines. This rulemaking reflects EPA's long term engagement with affected communities, and EPA's commitment to the following:

Community Involvement and Dialogue

In the two years prior to proposing this rule in 2014, EPA engaged with communities that live near refineries. It was in the context of those discussions that the possibility of fenceline monitoring was first raised.

EPA conducted two in-person trainings with fenceline communities and grass roots advocates in New Orleans, LA and Oakland, CA following the 2014 proposed rule. These trainings were designed to support the communities' ability to comment and participate in the regulatory process.

As the rule was being developed, EPA actively engaged with and listened to the concerns of vulnerable communities, and gave serious consideration to how to be responsive to those concerns within the bounds of the Clean Air Act. This included holding two public hearings in fenceline communities.

Environmental Justice

This rule was one of EPA's first to include an analysis of the communities living near an industrial source category (petroleum refineries), in addition to the required risk assessment. This analysis included information about inhalation and air-related exposures to toxic air pollution in communities near refineries before and after proposed pollution controls would be implemented.

The emission reductions from this final rule will result in over 1.4 million fewer people being exposed to cancer risks from refineries of more than 1-in-1 million. This represents a 15-20 percent reduction in cancer incidence associated with refinery

emissions. Because communities located near the fence-line of refineries have low income and minority populations at nearly twice the rate as the general population, these communities will benefit significantly from the emission reductions achieved by this final rule.

Responsiveness to Community Feedback

- *Fenceline Monitoring:* We heard that communities wanted to know more about the emissions coming from refineries. EPA responded with the first ever nationwide fenceline monitoring requirements that include:
 - Continuous monitoring at low detection levels.
 - Monitors must encircle the facility to better target sources of pollution (such as leaking pipes) under any wind direction.
 - Corrective action is required if there is a problem (based on a benzene concentration action level), but there are also built in incentives for facilities to fix problems immediately before they result in leaks and excess emissions.
 - The fenceline monitoring required by this rule is able to detect benzene at levels lower than current real-time monitoring technology is capable of measuring. However, in response to what we heard during our extensive public outreach, the rule provides room for alternative monitoring methods that will allow for real time monitoring in the future as technology advances.
- *Data availability:* We heard that communities wanted the monitoring data to be managed by EPA, so we will be working to develop a database. We will consult with communities about how to manage and communicate about reported data and keep the public informed on where the data will be housed. In addition, fenceline monitoring data reporting will be quarterly, which is more frequent than the twice annual requirement at proposal.
- *Upset Conditions:* We heard that communities were concerned about upsets at refineries and associated release of air pollutants. For the first time, the rule requires continuous and more stringent monitoring at flares and pressure relief devices, along with corrective action.
 - Emergency flaring and pressure release devices are source of great concern to neighboring communities. This rule will nearly eliminate emergency flare and pressure release device emissions by requiring implementation of preventative measures, tracking of emergency events, root cause analysis and corrective action upon their occurrence, and a hard limit on the number of events that can occur over time.

- Other Clean Air Act provisions, such as section 112(r), require refineries to notify local emergency management authorities in the event of upset conditions.
- EPA has also eliminated the “waivers” or exemptions to emissions limits in start-up, shut down and malfunction conditions.
- *Additional reductions in emissions and exposures:* We heard that communities were concerned about their air quality at all times, not just during upsets. In the final rule, and EPA is mandating controls for refinery emission sources where there were none previously or where additional emissions control is possible:
 - Storage Tanks: The rule requires new controls on smaller tanks that were not addressed in previous rulemakings, and additional controls on larger tanks.
 - Delayed Cokers: The rule puts in place control requirements for these emissions sources for the first time.

Continued Engagement

The EPA will continue to work with communities to better understand their unique concerns and needs. We will seek opportunities to enhance education and engagement around our rules, including the best way to make the monitored data required by this rule accessible and digestible by those who need to understand what the data means. Continued participation by affected communities is valued and allows EPA to enhance our focus on the needs of our most vulnerable communities and create healthier communities for all.

For More Information

- Interested parties can download the notice from EPA's website at the following address: <http://www.epa.gov/airtoxics/petref.html>.
- The final rule and other background information are also available either electronically at <http://www.regulations.gov>, EPA’s electronic public docket and comment system, or in hard copy at the EPA Docket Center’s Public Reading Room.
 - The Public Reading Room is located in the EPA Headquarters Library, Room Number 3334 in the EPA West Building, located at 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.
 - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed

through an X-ray machine, as well. Visitors will be provided a badge that must be visible at all times.

- Materials for this action can be accessed using Docket ID No. EPA-HQ-OAR-2010-0682.