At a Glance

Why We Did This Review

The Office of Inspector General (OIG) conducted this evaluation to determine the effectiveness of the EPA's process and controls for ensuring that gasoline refiners and importers meet EPA standards for benzene content in gasoline. Prolonged exposures to benzene are associated with blood disorders and leukemia.

The EPA's 2007 Mobile Source Air Toxics Rule set two standards to limit benzene in gasoline: an annual average standard and a maximum average concentration standard. Refiners and importers report to the EPA the volume and benzene content for each batch of gasoline produced or imported, and the total annual volume and average benzene concentration of all gasoline produced or imported for the year. Facilities can buy credits from other facilities to meet the annual average standard.

This report addresses the following EPA goals or cross-agency strategies:

- Addressing climate change and improving air quality.
- Protecting human health and the environment by enforcing laws and assuring compliance.

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Improved Data and EPA Oversight Are Needed to Assure Compliance With the Standards for Benzene Content in Gasoline

What We Found

The U.S. Environmental Protection Agency (EPA) could improve the effectiveness of its oversight processes and controls for the benzene fuels program to provide better assurance that refineries and importers report accurate and complete data, and comply with the gasoline benzene standards.

Program improvements can reduce the risk that benzene in gasoline exceeds legal limits.

We reviewed all batch and annual benzene reports for the period 2011 through 2014. Reported annual volumes and/or annual average benzene concentrations did not match supporting batch reports for over 25 percent of the regulated facilities. The benzene regulations require facilities to engage an auditor to attest to the accuracy of credit information in their annual benzene reports. However, the effectiveness of these reviews was limited because the auditors were not required to verify supporting data used to calculate credits.

EPA enforcement staff said they have limited resources to oversee all fuels programs. Thus, decisions to review and enforce benzene program compliance take into account the significance of a facility's potential or actual violations for all fuels programs. We identified potential noncompliance with the benzene standards at 40 facilities.

For 16 of these facilities, EPA staff had either never reviewed these facilities for compliance using its compliance assessment tool, conducted an on-site compliance audit as of the time of our review, or had reviewed the facilities prior to the year in which we identified the potential noncompliance. According to data reported to the EPA at the time of our review, these 16 facilities produced or imported over 13 billion gallons of gasoline during the period 2011 through 2014, which potentially did not meet applicable benzene standards for gasoline (about 3 percent of total U.S. volume during that period). Due to the possibility of reporting or other errors, additional review by EPA staff is needed to determine whether these facilities exceeded the benzene standards.

Recommendations and Planned Agency Corrective Actions

We made 10 recommendations for the EPA to improve data quality and completeness, and review instances of potential noncompliance. The EPA agreed with all recommendations or provided acceptable corrective actions for the recommendations. Two recommendations are complete and closed. Three recommendations are resolved because the EPA provided acceptable corrective actions and completion dates. Five recommendations are unresolved pending the EPA providing completion dates for the corrective actions.