



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

The 1990 Clean Air Act Amendments required the U.S. Environmental Protection Agency (EPA) to develop maximum achievable control technology (MACT) standards to reduce air toxics emissions from stationary sources. In 2004, EPA completed the last of its MACT standards. We conducted this evaluation to assess the effectiveness of those standards in reducing air toxics emissions.

Background

EPA has issued 96 MACT standards covering 174 different categories of industrial sources of air toxics. Now that the MACT standards have been issued, EPA must assess the public health risk remaining after each MACT standard is implemented. If the risk from a MACT category is "unacceptable," EPA must promulgate additional regulations to reduce air toxics emissions from that category. Excess exposure to air toxics can increase one's risk of developing cancer and other serious ailments.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2008/20071031-08-P-0020.pdf

Improvements in Air Toxics Emissions Data Needed to Conduct Residual Risk Assessments

What We Found

EPA's National Emissions Inventory (NEI) data indicate an overall decline in air toxic emissions concurrent with implementation of the MACT standards. Although NEI data reliability is uncertain, it is reasonable to conclude that air toxics emissions have decreased. Our work suggests that the MACT program has played a role in these reductions.

EPA plans to use NEI data to assess the public health risk remaining from MACT sources' air toxics emissions, but the reliability of NEI data for site-specific emissions varies considerably. EPA has not established objectives to define an acceptable level of quality for NEI data used in the residual risk process. EPA guidance recommends that program offices develop data quality objectives for using data in such decision-making processes. Given the uncertainties associated with NEI data, EPA could over- or under-estimate public health risk from MACT sources' emissions. Overstating risk could result in EPA placing on industries regulations that are not cost beneficial. Conversely, understating risk could result in EPA not requiring regulations where needed to protect public health.

In our March 2004 report on EPA's air toxics performance measures, we recommended that EPA require State reporting of air toxics emissions data. EPA has not implemented this recommendation, citing unclear statutory authority and the belief that voluntary reporting can achieve this goal. However, such a requirement could help EPA obtain more reliable and complete NEI data.

In December 2006, EPA presented its plan for conducting residual risk assessments to EPA's Science Advisory Board. The Board's June 2007 report recommended several actions to improve this process. These recommendations included developing a framework for improving the NEI data and conducting an analysis to determine the impact of data uncertainty on the risk assessments. In March 2007, EPA solicited public comment on the NEI and other data it plans to use for conducting residual risk assessments.

What We Recommend

We recommend that EPA develop data quality objectives for using NEI data in conducting residual risk assessments, and establish requirements for State reporting of air toxics emissions data and compliance monitoring information. EPA disagreed with our recommendations, but stated that it had activities underway to improve the NEI data. However, EPA's planned actions do not sufficiently address the problems identified, and we consider the issues unresolved.