



At a Glance

Why We Did This Review

We conducted this evaluation to determine what actions the U.S. Environmental Protection Agency (EPA) has taken to reduce methane emissions from leaking pipelines in the natural gas distribution sector.

Methane is a potent greenhouse gas with a global warming potential 25 times that of carbon dioxide. In June 2013, President Obama issued the Climate Action Plan, which states that “curbing emissions of methane is critical to our overall effort to address global climate change.” In 2012, the EPA reported that methane leaks from pipelines in the natural gas distribution sector accounted for more than 13 million metric tons of carbon dioxide equivalent emissions. These leaks are comprised of natural gas product, which is almost 100 percent methane, and account for more than 10 percent of total methane emissions from natural gas systems.

This report addresses the following EPA goal or cross-agency strategy:

- *Addressing climate change and improving air quality.*

For further information, contact our public affairs office at (202) 566-2391.

The full report is at:
www.epa.gov/oig/reports/2014/20140725-14-P-0324.pdf

Improvements Needed in EPA Efforts to Address Methane Emissions From Natural Gas Distribution Pipelines

What We Found

The EPA has placed little focus and attention on reducing methane emissions from pipelines in the natural gas distribution sector. In 2012, the EPA stated its intent to continue to evaluate the appropriateness of regulating methane.

The 2013 Climate Action Plan calls for the EPA, in conjunction with other federal agencies, to develop a comprehensive

interagency strategy to address methane emissions. The EPA does not currently regulate methane emissions from the distribution sector and has not partnered with the Pipeline and Hazardous Materials Safety Administration, which regulates pipeline safety, to control methane leaks. The EPA has a voluntary program to address methane leaks—Natural Gas STAR—but its efforts through this program have resulted in limited reductions of methane emissions from distribution pipelines. This is due largely to financial and policy barriers, including disincentives for distribution companies to repair nonhazardous leaks.

The agency needs to address additional issues to better assess progress from the voluntary program and determine if future regulations are warranted. The EPA needs to set goals and track its progress in reducing emissions from distribution pipelines through its voluntary program. Also, the EPA needs to evaluate data from ongoing external studies to determine their usefulness for validating or updating its distribution pipeline emission factors. The emission factors that the EPA uses are based on a 1996 study, which has a high level of uncertainty. Two non-EPA groups are conducting studies that may be useful to the EPA. However, the EPA’s involvement in the design or protocols of these studies has been limited.

Recommendations and Planned Corrective Actions

We recommend that the EPA (1) work with the Pipeline and Hazardous Materials Safety Administration to address methane leaks from a combined environmental and safety standpoint, (2) develop a strategy to address the financial and policy barriers that hinder reductions from the distribution sector, (3) establish performance goals, (4) track distribution sector emissions and use that data to help determine if future regulation would be appropriate, and (5) assess whether data from ongoing studies should be used to update distribution sector emission factors. The agency agreed with recommendations 1 and 2 and provided corrective action plans that meet the intent of the recommendations. The agency partially agreed with recommendations 3, 4 and 5 and these three recommendations are considered unresolved.

Methane emissions impact climate change through leaks in natural gas distribution pipelines, and also have economic impacts. We estimate that more than \$192 million in natural gas was lost in 2011 due to such leaks, a cost that is borne by consumers.