



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

Between Fiscal Years 2000 and 2003, our Office of Investigations laboratory fraud unit saw an increase in cases. Drinking water samples, if not appropriately analyzed, will increase the risk of public exposure to harmful contaminants. We conducted this review to identify vulnerabilities in the drinking water sample analysis process and promising techniques to improve laboratory integrity.

Background

The Safe Drinking Water Act of 1974 provides that a laboratory must obtain approval by the U.S. Environmental Protection Agency (EPA) or a State before analyzing public drinking water samples for compliance with health-based standards. EPA certification and National Environmental Laboratory Accreditation Conference accreditation programs provide oversight of drinking water laboratories.

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/2006/20060921-2006-P-00036.pdf

Promising Techniques Identified to Improve Drinking Water Laboratory Integrity and Reduce Public Health Risks

What We Found

Within the drinking water sample analysis process we identified hundreds of vulnerabilities that are not addressed by EPA's process. These vulnerabilities can compromise the integrity of the analysis process and the quality of data produced. Many of these vulnerabilities were identified by the Office of Inspector General in 1999 and the Agency's own review in 2002, with no action by the Agency. Moreover, States that have implemented new techniques to detect laboratory integrity problems have found additional deficiencies, inappropriate procedures, and even cases of fraud. Their findings and those of our own investigators show integrity can be, and has been, compromised. However, without any national studies of water quality data that include examining the integrity of laboratories, the full extent of the problem remains unassessed.

Through our work with States, laboratory organizations, and other Federal agencies, we identified promising techniques to help improve oversight and protect against inappropriate procedures and fraud in the drinking water analysis process. This report contains details on those promising techniques.

What We Recommend

Given the potential impact of poor quality data on human health, we recommend that EPA assess drinking water laboratory integrity and incorporate promising techniques to better identify inappropriate procedures and fraud into the laboratory oversight process. Our specific recommendations include reforms to laboratory oversight processes, policy, guidance, and training. In addition, the Office of Ground Water and Drinking Water should improve awareness of the vulnerabilities and realities of fraud and inappropriate procedures affecting drinking water data quality. The Office of Environmental Information should develop a mechanism to identify, and a policy to address, data in Agency databases from laboratories under investigation, indictment, and/or conviction. EPA suggested modifications to several of our recommendations, preferring to encourage rather than require the use of promising techniques. We made changes where appropriate.