



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

This review, conducted by KPMG, LLP, on behalf of the Office of Inspector General, sought to evaluate the quality and integrity of data that resides in the U.S. Environmental Protection Agency's (EPA's) Enforcement and Compliance History Online (ECHO) system.

Background

ECHO provides integrated compliance and enforcement information for approximately 800,000 regulated facilities nationwide. ECHO allows users to find inspection, violation, enforcement action, informal enforcement action, and penalty information about facilities for the past 3 years. ECHO contains information for the facilities regulated under the following environmental statutes: Clean Air Act Stationary Source Program, Clean Water Act National Pollutant Discharge Elimination System, and Resource Conservation and Recovery Act.

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

To view the full report, click on the following link:
www.epa.gov/oig/reports/2009/20090831-09-P-0226.pdf

ECHO Data Quality Audit – Phase I Results: The Integrated Compliance Information System Needs Security Controls to Protect Significant Non-Compliance Data

What KPMG Found

End users of the Permit Compliance System and Integrated Compliance Information System National Pollutant Discharge Elimination System (ICIS-NPDES) can override the Significant Non-Compliance (SNC) data field without additional access controls. This occurs because EPA has not implemented database security features to restrict access to this field. Further, the ICIS-NPDES database edit checks do not prevent access to the SNC field. As a result, users can change original data without authorization, which could directly affect ICIS-NPDES data made available to the public via ECHO.

Other than the above weakness, KPMG noted that EPA implemented many effective processes designed to populate the Integrated Data for Enforcement Analysis (IDEA) database, which the ECHO system uses to create reports for its users. KPMG noted that many of the EPA systems that feed data to IDEA have front-end edit checks designed to help ensure data quality. Further, KPMG noted that making data available through ECHO is a very complex process that involves many data systems. KPMG noted that EPA has developed a methodology to manage the States' data conversions. KPMG noted that EPA's data mapping and system life-cycle documentation, data migration tools, and lessons learned processes are effective in managing this complex data conversion process.

What KPMG Recommends

The Director, Office of Compliance, Office of Enforcement and Compliance Assurance (OECA), should implement database security features to limit the end users' ability to change the SNC code in ICIS-NPDES.

On August 6, 2009, the EPA Office of Inspector General met with OECA to provide a briefing report of KPMG's work to date and discuss the SNC code finding. OECA provided informal comments on the finding. OECA plans to explore additional options to restrict manual SNC code override in ICIS-NPDES.