



At a Glance

Why We Did This Review

In response to a hotline complaint, we conducted an audit of the U.S. Environmental Protection Agency's acquisition of chemical fume hood retrofitting and testing contracts. Laboratory fume hoods minimize chemical exposure to laboratory workers. The fume hoods are considered the primary means of protection from inhalation of hazardous vapors, mists and particulate matter. The objectives of our audit were to answer the following questions:

1. Is the EPA complying with applicable procurement regulations and guidance regarding its purchases of chemical fume hood retrofit kits and procurement of fume hood testing contracts?
2. Do the chemical fume hood retrofit kits in question meet applicable safety standards and codes?

This report addresses the following EPA Goals or Cross-Cutting Strategies:

- Ensuring the Safety of Chemicals and Preventing Pollution.
- Strengthening EPA's workforce and capabilities.

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

The full report is at:
www.epa.gov/oig/reports/2013/20130828-13-P-0363.pdf

Chemical Fume Hood Testing Improvements Needed to Reduce Health and Safety Risk to EPA Employees

What We Found

We found that the EPA complied with applicable regulations and guidance in procuring both the chemical fume hood retrofit kits and fume hood testing contracts. The EPA awarded both contracts using competition as opposed to using sole source procurement contracting methods. However, the same subcontractor, operating under the same prime contractor, is performing both the retrofitting of the chemical fume hoods and the annual testing of the hoods, which presents a potential conflict of interest. The agency already completed corrective action in response to our preliminary recommendation for this finding.

In addition, our technical expert's review of a sample of testing results for the chemical fume hoods raises numerous concerns with the way the testing was performed at the EPA's Research Triangle Park laboratories. The subcontractor rated the hoods as pass:

- When not all of the EPA requirements were met.
- When controllers or monitors were not functional.
- When the testing results did not include all required documentation.

The agency's 2009 testing protocol spells out the criteria for testing and evaluating the performance of fume hoods at the EPA's laboratories, and would also be applicable to fume hood retrofitting. The EPA relied on the prime contractor to ensure the subcontractor's fume hood testing met all requirements, and did not retest any of the hoods, without a user's specific report of a problem. As a result, the EPA has limited assurance as to the safety of the chemical fume hoods, and there is a risk to the health and safety of the laboratory workers.

Recommendations and Planned Agency Corrective Actions

We recommend that the director, National Exposure Research Laboratory, require the Research Triangle Park Safety, Health and Environmental Management Office to:

- Increase oversight and analysis of contractor testing results.
- Ensure that when a monitor is reported as not functioning or inaccurate it is timely repaired or replaced.
- Establish a practice of retesting a sample of the chemical fume hoods annually to verify the subcontractor's testing results.
- Work to revise and update the EPA's 2009 testing protocol criteria.

The agency agreed to take corrective action for all four recommendations, and provided expected completion dates. The agency's proposed corrective actions and planned completion dates meet the intent of the recommendations.