



At a Glance

Why We Did This Review

An Office of Inspector General hotline complaint alleged that firms were using the U.S. Environmental Protection Agency-developed Environmental Relative Moldiness Index tool to evaluate homes for indoor mold even though the EPA had not validated the tool for public use. The EPA developed ERMI as a way to objectively describe the mold burden present in a home. The index is based on a national sample of indoor mold values. These mold values were determined using an EPA-patented technology called mold specific quantitative polymerase chain reaction. MSQPCR is a way to identify and quantify indoor mold species. As of January 2013, the EPA had 10 active licenses of the MSQPCR technology. We sought to determine whether MSQPCR and ERMI had been properly peer reviewed and validated for public use.

This report addresses the following EPA Goal or Cross-Cutting Strategy:

- *Advancing science, research, and technological innovation.*

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/2013/20130822-13-P-0356.pdf

Public May Be Making Indoor Mold Cleanup Decisions Based on EPA Tool Developed Only for Research Applications

What We Found

We substantiated the allegation that firms were using the mold index tool although the EPA had not validated the tool for public use. The EPA readily acknowledged that it had not validated or peer reviewed MSQPCR or ERMI for public use. The agency said it considers MSQPCR and ERMI to be research tools not intended for public use. Although the EPA has licensed MSQPCR to companies for introduction into the marketplace under the Federal Technology Transfer Act of 1986, neither federal law nor the EPA's procedures address the level of validation needed before or after transferring federally developed technologies to the private sector. In addition, there are no EPA regulatory requirements for developing or validating indoor mold test methods or assessing indoor mold levels.

Licensees were marketing MSQPCR to the public as part of the ERMI tool. In our view, one current and one past licensee's advertising could mislead the public into thinking that these research tools are EPA-approved methods for evaluating indoor mold. The license agreements stipulate that the licensee should not state or imply in any medium that the EPA endorses MSQPCR. In addition, information that appeared on an EPA webpage suggested that the EPA validated and endorsed MSQPCR for public use. Consequently, there is a risk that the public may make inappropriate decisions regarding indoor mold on the belief that MSQPCR and ERMI results were based on research tools fully validated and endorsed by the EPA for public use. Public awareness of indoor mold has risen over the past several years, and trade industry and other publications have raised concerns about the legitimacy of some firms offering remediation services. Because of the numerous questions the EPA received from the public regarding the ERMI tool, the EPA drafted a fact sheet on indoor mold, MSQPCR, and ERMI. Informing the public about the ERMI tool and monitoring compliance with license agreements would improve assurance that the public is not misled about the ERMI tool and understands its limitations. However, the EPA has not finalized or published this fact sheet.

Recommendations and Planned Corrective Actions

We recommend that the EPA periodically review licensee advertising of the MSQPCR tool to determine whether licensees have violated the terms of the license agreement and take appropriate actions as necessary. We also recommend that the EPA remove or clarify potentially misleading statements on its webpage, and finalize a fact sheet on indoor mold, MSQPCR and ERMI to inform the public that MSQPCR and ERMI have not been peer reviewed or validated for public use. The agency generally agreed with our report and provided corrective actions and estimated completion dates that meet the intent of our recommendations. Also, the agency has removed a webpage containing potentially misleading statements; thus, we are closing this recommendation.