

Fact Summary About Recently-Released EPA Documents Concerning Its Alternative Asbestos Control Method Tests

On November 10, 2011, after fighting requests for public disclosure for more than a year, EPA released internal reports that raise serious concerns about the safety of an experimental method that EPA has been testing for the past five years. That method would relax requirements for the removal of asbestos in demolished buildings. Concerned about the safety of this new method, Public Justice and NRDC had asked EPA to release its data and other documents about its tests. EPA refused, forcing these organizations to bring a federal lawsuit under the Freedom of Information Act (FOIA) compelling disclosure. At the last minute, EPA released documents that included a report by one of its own senior scientist finding that EPA did not comply with health and safety standards and may have endangered demolition workers and its own employees during the tests. While EPA recently decided to stop working on the new method, the Department of Energy has plans to use a similar method to remove asbestos from its facilities.

A. The Asbestos NESHAP and the Wet Method

Asbestos is a known carcinogen that is present in the structures, insulation and material components of many buildings in the United States. Congress has found that “medical science has not established any minimum level of exposure to asbestos fibers which is considered to be safe to individuals exposed to the fibers.” 20 U.S.C. § 4011(a)(3).

EPA currently regulates the demolition and renovation of asbestos-contaminated buildings under its National Emissions Standards for Hazardous Air Pollutants (NESHAP) program, which it administers under the Clean Air Act. 42 U.S.C. § 7412(d)(1), (d)(2); 40 C.F.R. § 61.145. Under that standard, the owner or operator of a demolition activity must “[r]emove all RACM [regulated asbestos-containing materials] from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal.” 40 C.F.R. § 61.145(c)(1).

There is, however, an emergency exception to this requirement for pre-demolition removal of asbestos: total removal of RACM is not required “[i]f the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse.” *Id.* § 61.145(a)(3). Under this limited exception, workers on site may spray down the asbestos in order to suppress release and contamination. *Id.* The dampened asbestos then remains in place during demolition. *Id.* § 61.145(a)(3), (c)(4)–(9). This exception is commonly referred to as the “wet method” or “wet demolition.”

B. EPA’s AACM Tests

In recent years, EPA has explored changing the asbestos NESHAP to allow for widespread use of a modified wet method called the Alternative Asbestos Control Method, or AACM. Under the AACM, most of the asbestos-containing materials are left in place during demolition, and water with added surfactants is sprayed on the building to suppress asbestos release and contamination. EPA approval of the AACM would relax existing EPA regulations by allowing asbestos to remain in a building during demolition even though the building is not

structurally unsound and in imminent danger of collapse. In effect, it would convert the wet method from a limited emergency exception to a broadly-applicable method.

EPA planned several tests of this method on several buildings in Texas and Arkansas. The first test was to be done in June 2004 on the Cowtown Inn in Ft. Worth, in the middle of a residential neighborhood, but opposition from local residents forced EPA to abandon that plan. At the time, EPA's Asbestos Coordination Team (ACT), composed of senior EPA scientists, objected to the test, stating that it rested on "numerous assumptions that are not clearly supported by scientific studies."

In August 2004, St. Louis city officials tried using the wet method to demolish the Landscape Building at the St. Louis airport. The ACT "concluded that not only did the study design of the demolition limit the ability to generalize the results, but that the data indicate statistically significant downwind asbestos release and possible exposures during and following the wet demolition of the building." EPA's final May 2005 report on that test found that downwind air monitors "captured some asbestos fibers that were obviously released during the demolition process."

EPA conducted its first "official" test of the technique in April 2006 (AACM1). During this project, EPA demolished two abandoned army barracks in Fort Chaffee, Arkansas, using the AACM for one building and the prescribed NESHAP procedures for the other. EPA's subsequent report on this test concluded that the AACM released more asbestos and particulates into the air than did the NESHAP method. The report also stated that "EPA does not endorse the AACM at this time as an approved method under the asbestos NESHAP for demolishing buildings containing" asbestos.

In 2007, EPA conducted two more tests of the modified wet method: AACM2 and AACM3. AACM2 took place in July 2007 at a different building at Fort Chaffee, this one with asbestos siding. AACM3 occurred in December 2007 at the Oak Hollow Office in Fort Worth, in the midst of a residential area. In 2008, EPA's Office of Research and Development, which supervised AACM2 and 3, solicited public comment on the draft reports on those two tests and held an external peer review session to review the draft reports. 73 Fed. Reg. 42,573 (July 22, 2008).

Public Justice and NRDC have consistently opposed the AACM and EPA's pilot tests of this method, contending that the AACM is ineffective, unsafe and endangers public health. Both organizations, along with a host of nonprofit groups and labor unions, signed a letter to EPA Administrator Jackson in May 2010 asking her to disclose the documents underlying the two draft reports and to discontinue testing of the AACM. This letter identified several troubling aspects of the tests. For instance, air monitors, settled dust monitors, water samples, and pavement samples contained asbestos; photographs depicted site workers wearing no safety equipment; and the agency discharged asbestos-contaminated wastewater into a public sewer system without a permit and without first measuring the amount of contamination.

C. FOIA Request to EPA

In June 2010, concerned about the safety and efficacy of the AACM, NRDC and Public Justice submitted a FOIA request asking EPA to produce the data and other documents associated with AACM2 and 3. After receiving only a minimal response from the agency, Public Justice and NRDC filed a complaint in the U.S. District Court in Manhattan in April 2011, alleging that EPA had failed to produce all responsive records and had withheld records unlawfully. In September, EPA finally released thousands of responsive documents, but withheld many others and invoked exemptions from release improperly.

Some of the released documents showed EPA misconduct in how it performed the AACM2 and 3. For example, photographs showed an EPA employee power-hosing the AACM2 transite building prior to demolition while wearing a T-shirt and flip-flops, without any of the required protective respiratory gear. (1) This occurred despite the fact that “the transite panels on the building had been degrading over the years and were contributing significant asbestos to the immediate paved area surrounding the building.” (2) Worse still, EPA cropped the photograph in its draft report in a manner that concealed the potential violation, showing only the worker’s hand holding the hose and not the rest of his body or clothing. (2) A subsequent photo in the draft report shows another worker wearing protective gear doing the same task. (2) EPA reproduced the cropped photo in a number of public PowerPoint presentations. Other photographs from AACM3 show workers wearing no facemasks or other protective respiratory equipment when engaged in potentially hazardous activities during and shortly after the demolition. These activities include sampling the asbestos-contaminated slab, standing near the dumpster while it was being loaded with asbestos debris, and pouring asbestos-contaminated water into that dumpster. (3)

Other released documents showed that EPA misused the emergency wet method exception during the AACM2 test. The purpose of this exception is to protect employees from having to work in an unsafe building at risk of collapsing, which would otherwise occur if full removal of asbestos were required pursuant to the NESHAP. For the AACM2 building, EPA obtained a city determination that the building was unsafe and in danger of imminent collapse, and then allowed its employees and private contractors to nail 1550 square feet of additional asbestos onto the building prior to the test. (4) EPA ordered this work on the building even though it was determined to be in danger of collapse at any minute.

D. The Nine Released Documents on the Safety of the AACM Tests

In December 2009, in response to comments on the AACM2 and 3 reports from other EPA offices, Sally Gutierrez, the director of the Office of Research and Development’s National Risk Management Research Laboratory (NRMRL), “asked [her] staff to complete a thorough review of the health and safety measures implemented during the course of these research studies.” (5) EPA’s Steve Musson, the agency’s most senior staff member on these issues and a certified industrial hygienist, then performed three reviews of AACM2 and 3 in January through Marc of 2010. (5) EPA withheld nine documents about these health and safety reviews. After Public Justice and NRDC announced plans to litigate EPA’s withholding of these documents, and on the same day in November that the motion seeking release was due to be filed in court, EPA relented and released those documents. Three of the nine released documents contain the results of Mr. Musson’s analysis. (5)

Although Mr. Musson did not analyze fully whether EPA had complied with all regulatory standards, the released documents show that he made the following findings, which raise serious concerns about EPA's conduct during the tests:

- Workers at the perimeter of the work area did not wear personal air monitors. Significantly, air samples at this boundary “did show appreciable levels of asbestos.”
- EPA did not take required short-term samples of asbestos levels in the air.
- EPA officials never signed or approved the Health and Safety Plans that were drafted for the tests.
- EPA employees did not complete required training for respiratory protection.
- The test developers did not properly determine the area within which people could be exposed to asbestos during the tests, or the potential distance that asbestos fibers could travel.
- The size, location and distance of a plastic barrier to protect nearby occupied buildings “appear to be arbitrarily determined.”

Mr. Musson also stated that, based on the limited and inadequate data collected, EPA employees and workers were not exposed above OSHA limits for worker exposure. However, those individuals were likely exposed to some quantity of asbestos, and there is no safe level of exposure to that substance. OSHA stated in 1994 that its exposure limit of 0.1 f/cc, which was used by Mr. Musson, “would further reduce, but not eliminate, significant risk” of cancer. 59 Fed. Reg. 40964, 40966 (Aug. 10, 1994). So far as we can determine, these individuals have never been informed about their exposure; all of Mr. Musson's analysis was kept hidden from the public until now.

In July 2011, during the litigation discussed above concerning withheld AACM documents, EPA officials decided to stop further work on the AACM. EPA's decision memorandum cited “important technical deficiencies” with the tests, including the use of the wrong air pollution model and “technical problems that arose during sampling and analysis.” (6) While the memorandum did not state that EPA is abandoning the AACM altogether, it concluded that because the agency is not considering revisions to the asbestos NESHAP “at this time,” it would be “more prudent” for the agency to use its resources on other “higher priority research needs.”

Nevertheless, the Department of Energy (DOE) is still trying to use alternative methods for asbestos removal. DOE plans to demolish some of its facilities that contain millions of square feet of transite siding, which has up to 50% asbestos. In advance of these demolitions, DOE conducted an experiment that dropped transite inside a test enclosure after it was sprayed with water. DOE found that the water spray “does not penetrate the transite and does not decrease airborne fiber concentrations upon breaking.” *See* <http://www.em.doe.gov/EM20Pages/PDFs/TFS%20-%20Transite%20Panel-FINAL-JD-PK.pdf>.

The contractor conducting the experiment found that “there was no trending suggesting that water or amended water performed better at controlling friable asbestos.” *See* <http://mcl-inc.com/case-studies/decommissioning-and-demolition-dd/>.

Despite this failure, DOE is planning on using an alternative method to remove transite at its Paducah, Kentucky facility. *See* <http://www.wpsdlocal6.com/news/local/Possible-change-in-asbestos-removal-process-sparks-concern--132262808.html>. DOE’s method would allow the transite to fall to the ground from a height of up to 120 feet. *Id.* By contrast, EPA’s current NESHAP regulation requires any person removing transite from a building to “carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing” the material. 40 C.F.R. § 60.145(c)(2)(ii).

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