



ENVIRONMENTAL INFORMATION ASSOCIATION

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Docket ID No. EPA–HQ–OAR–2017–0427
**National Emission Standards for Hazardous Air Pollutants for Asbestos:
Request for Approval of an Alternative Work Practice for Asbestos Cement
Pipe Replacement**

Comments by:
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Background

The Environmental Information Association (EIA) represents over 700 professionals engaged in all facets of the asbestos abatement industry in the United States of America, including contractors, consultants, laboratories, training providers, equipment suppliers, building owners and government regulators. EIA was founded in 1983 as the National Asbestos Council, and since its founding, has been the only multi-disciplinary organization dedicated to providing accurate, balanced information to our members and beyond regarding environmental health hazards in buildings and facilities. EIA has provided support to EPA asbestos programs since our founding. Most recently, EIA worked with EPA to consider a re-write of EPA's "Guidance for Controlling Asbestos-Containing Materials in Buildings: A Guide for Owners and Managers" (EPA 560/5-85-024) known affectionately as the "Purple Book." EIA's involvement with EPA in an evaluation of this document resulted in EIA publishing a re-write of the document when EPA lost funding to be able to produce the document as a result of budget sequestration in 2013. In 2015, EIA published "Managing Asbestos in Buildings: A Guide for Owners and Managers." The membership of EIA is dedicated to the safe abatement and remediation of asbestos hazards.

Summary

The proposed alternative work practice appears to offer a technologically feasible way of replacing aging pipes without the need for an open trench method to reach the pipes. However, there are a number of concerns regarding the use of this technology for asbestos cement (A/C) pipes that are not addressed by the request for approval. EIA believes that more transparency and information is required regarding the proposed method, and EIA believes that EPA has a duty to fully evaluate the method regarding potential asbestos exposures to persons and the environment.

1. The proposed method still leaves an asbestos-containing slurry coating on the outside of the replacement pipe that should be considered a Category II nonfriable ACM that has a high probability of becoming friable during any subsequent pipe replacement process.
2. The EPA is obligated to assure that the proposed method provides for emission limitation methods that are at least equivalent to the reduction achieved by the work practices currently allowed under the existing NESHAP standard. EPA has not yet met this burden.
3. Although economic considerations are not a part of EPA's required process of approval of the AWP, some consideration should be given to the economics of a method that still leaves an

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asbestos exposure hazard compared to current open trench methods that completely remove the asbestos exposure hazard once complete.

4. There is no information in the docket indicating that any tests have been performed on A/C pipes, which differ substantially from clay pipes. There is also no information regarding the effectiveness of the method on pipes that are substantially deteriorated to the point that the pipes have lost structural integrity. There are many issues that yet need to be answered and demonstrated.

Further details of EIA's comments follow:

Method Still Leaves ACM on new pipe

The AWP proposal notes that an asbestos-containing slurry will remain on the replacement pipe. At best, this material will be a Category II non-friable ACM that has a high probability of becoming friable during any subsequent maintenance, repairs or replacement of the pipe with the slurry coating. As EPA notes in the docket, "Even A/C pipes in good condition (which would be Category II nonfriable ACM) become regulated ACM, if the pipe has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the pipe during the renovation activities." As such, the AWP seems to put a lot of effort and expense into a method that doesn't prevent the need for dealing with asbestos the next time the new pipe must be accessed. The AWP discusses a test for friability of the resulting slurry, by having someone attempt to crush the material under hand pressure. This is entirely disingenuous, since the forces that will be used on the replacement pipe in the future will most certainly be performed by heavy equipment and saws that will render the "lightweight concrete" friable through a process of cutting, grinding, abrading and sawing. The proposed requirements for utility map notifications (and related issues), although well-intended, will, based on current experience, be virtually meaningless.

EIA fears that once the AWP is performed, most persons associated with the process will contend that the "asbestos has been removed," even if records are kept in some obscure database. OSHA requirements and NESHAP requirements will continue to require inspections of the new piping that has been put into place using the AWP under review. However, these inspections are not likely to occur, since someone will likely proclaim, "Don't you remember, we removed the asbestos pipe years ago." Notifications must be made to workers that may encounter these materials when the replacement pipe system needs to be serviced. How will these notifications occur? The asbestos control industry already has significant experience with existing recordkeeping requirements; OSHA and EPA. For all intents and purposes this does not work as expected in many, if not most cases. This is easy to verify merely by reviewing EPA audits for compliance with 40 CFR Part 763, Sub E. It is well known, and has been discussed for some time by EPA staffers and State/Local designated programs, that most schools do not keep required records available and up to date. This is also evident with OSHA enforcement actions with many of their regulatory compliance efforts. OSHA annually publishes a list of common violations where recordkeeping is a significant part of non-compliance.

EPA is obligated to assure that the AWP is equivalent to existing NESHAP requirements

The 40 CFR Part 61 General Provisions explain under what circumstances the EPA may approve an alternative means of emission limitation. At 40 CFR 61.12(d)(1) and (2), the General Provisions require that the alternative means of emission limitation must achieve a reduction in emissions at least equivalent to the reduction achieved by the work practices required under the existing NESHAP. To date, EPA has not met this burden.

EIA recommends that EPA undertake a number of demonstration projects using both existing methods and the AWP on A/C pipe with careful oversight and monitoring to assure that the AWP meets the requirements prescribed by NESHAP. EPA might consider an approach such as the methods used in the evaluation of the *Alternative Asbestos Control Method* (AACM) initiative of the early 2000's where EPA conducted a "research project" that was not intended to lead to rule-making. Documents were posted on the EPA Region Six website for each of the three demolitions of buildings containing asbestos-containing materials, including the formal QAPP, test results including air, water and soil sampling and analysis, and the proceedings of the expert panels convened to review the program.

Considering that this AWP proposal is intended to result in a revision to the NESHAP, the same approach as the AACM, with equivalent transparency of information, would seem appropriate. A test program should be conducted with defined criteria for determining compliance with the NESHAP and the results should be reviewed by an expert panel prior to acceptance by EPA and revision of the NESHAP.

EPA puts forth the procedure described on FR 18047 (E: "Approved techniques") as the criterion against which the AWP will be evaluated. Correspondence in the docket indicates the absence of visible emissions as one criterion. What other observable and measurable factors will EPA consider in their evaluation? EIA recommends that EPA consider ASTM E2394 *Standard Practice for Maintenance, Renovation, and Repair of Installed Asbestos Cement Products* as a part of its review process of the AWP. This standard includes in an appendix a procedure titled "Removing Damaged Asbestos Cement Pipe," which is based on Best Practices for Removing Asbestos-Cement Pipe from the Underground Contractors Association of Illinois. The standard contains other precautions against soil contamination and worker exposure in the main text. The AWP should be shown to be at least as protective as the provisions of this ASTM standard including the appendices.

Economic Considerations

EIA appreciates that EPA is under no obligation to investigate economic considerations as a part of the review of the AWP. However, in an effort to provide full transparency, it seems that a review of the relative economics of both the AWP compared to existing methods of pipe replacement is warranted. This review of economics becomes even more important when one considers that the AWP does not rid the piping system of asbestos. As noted earlier, any subsequent maintenance, renovation or replacement of the "new" piping will likely be subject to NESHAP requirements, and will certainly fall under the purview of the OSHA asbestos regulations. In short, the AWP seems to involve a substantial effort and expense that doesn't result in any change or improvement in the way the piping system must be handled in the future.

More information (and demonstration) is needed

The size, configuration and system inconsistencies of the pipe being replaced will certainly affect the applicability of the AWP and the preparation of the site. The issues described in the docket and related documents referenced have presented not much more than a theoretical approach for general consideration. There are many issues that yet need to be answered and demonstrated. For instance, what are the impacts to asbestos NESHAP regulations should trenching be required along with the recovery of broken AC pipe by more conventional methods? As an example, it is known from work of this nature already being performed with conventional trenching methods that sections of crushed pipe mixed with overburden can be encountered even if much of the pipe length being removed is intact. It is not uncommon currently with Category II A/C pipe removal utilizing trenching techniques to find crushed pipe such the NESHAP threshold is met for notification. In these cases significant

recovery work needs to occur to clear the broken A/C pipe and contaminated soil mixed with it. While inspections of these systems are required in advance of the proposed AWP work, EIA has concerns that the wide variety of service providers likely to use the proposed this process will be diligent to know all potential problems along a given AC pipe system; from changes in site elevations, off-centered sections to those sections of crushed pipe that could be quite significant.

Despite the statement for the need for inspections, the net effect the proposed AWP method almost assumes relatively intact and predictable diameters of pipe, even though acknowledgement is made to the pipe being potentially variable in design when originally installed, significantly cracked or softened. Should the AWP project utilizing the proposed methods encounter a significant length of crushed or off-centered pipe, would they merely continue to grind along what was likely the original path of the AC pipe when it was still intact? If so, significant amounts of RACM would not be collected and would also not likely be bound up by the slurry mud for removal through the proposed slurry removal technique. Thus making for inadequate recordkeeping regarding the removal of the material and potentially affecting future disturbance of the given area and impact to worker safety. If the proposed AWP process was employed on a project and a significant amount of crushed or displaced material was encountered that would require halting AWP procedures and proceeding with conventional trenching and removal of RACM and contaminated soil, all as RACM, it seems a notification update would need to be filed with the local NESHAP authority including describing all necessary work practices. There are no provisions for these likely inevitabilities in the proposed methodology with an emphasis on the need for updating notifications.

In addition, the inconsistencies in the slurry coating that will be left behind, both in amount, thickness and strength need to be better understood through demonstration on actual A/C pipe, instead of using clay pipe. EIA has been party to demonstration projects during our existence (robotic asbestos pipe insulation removal, engineered by Carnegie Mellon University) that worked well on non-asbestos insulation, but failed when being used on actual asbestos material.

Conclusion

EIA does not agree with EPA's interpretation that the AWP is equivalent to the work practice in the asbestos NESHAP. To date, this has not been demonstrated. EPA goes so far in the docket as to say that the AWP "removes the A/C pipe while replacing it with non-asbestos materials, converts friable ACM, and ACM that may become friable when disturbed into nonfriable ACM during replacement."

Based on the information in the docket, this statement is patently untrue.

The replacement pipe must still be considered an ACM, and the "nonfriable" slurry coating is undoubtedly a Category II ACM that is likely to become friable. EPA needs to provide more testing, demonstration and transparency while considering this AWP, in order to back up the claims made by both the proposer and EPA. EIA supports further consideration of the AWP through testing, demonstration and a review of economic considerations.