Asbestos guidance on excavation projects

Solid Waste/Asbestos Program

This guidance document is for excavation/construction projects that involve demolition debris, solid waste or other materials (debris) contaminated with asbestos-containing materials (ACM) and/or asbestos-containing waste materials (ACWM) that are excavated or otherwise disturbed during the project. This document does not address those activities that are related to a demolition project. If you want information related to building or structure demolition please contact the Minnesota Pollution Control Agency (MPCA) Asbestos Program 651-296-6300 or 1-800-657-3864.

The excavation of any debris that is contaminated with ACM/ACWM is governed by 40 Code of Federal Regulations (CFR) pt. 61, subp. M, also known as the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP).

The regulatory framework of the asbestos NESHAP for excavations is as follows:

1. The definition of a "Facility" includes Inactive Waste Disposal Sites.
2. An Inactive Waste Disposal Site is defined as a site where no additional ACM/ACWM has been deposited (i.e. disposed of) for one year or more.
3. Renovation means the altering of a "Facility" in any way, which includes the excavation of an inactive waste disposal site.
4. Projects that involve excavation or disturbance of debris with ACM and/or ACWM contamination are renovations and are subject to the asbestos NESHAP.

   For excavations with ACM/ACWM contamination, the owner(s) and operator(s) of the property and the project should determine the extent of the contamination in relation to the material to be excavated or disturbed in order to assure that the project is conducted in compliance with the asbestos NESHAP. To determine the extent of the contamination:

   a. Conduct a thorough inspection of the area to be excavated or disturbed for the presence of ACM/ACWM. In an excavation, this usually means digging test pits since soil borings are too limited as an investigative tool. If possible, determine what quantity and to what extent of debris is contaminated with ACM/ACWM. This determination can be made from the test pits or other information in connection with physical observations. The sampling and testing of suspect ACM must be performed by a Minnesota Department of Health (MDH) licensed asbestos inspector. Soil testing for asbestos may need to be performed if friable ACM materials are identified in an area.
   b. Determine the extent of contamination – until investigated, all demolition debris and suspect ACM are considered Regulated Asbestos-Containing Materials (RACM). The contamination may be limited to specific areas of the excavation or of the demolition debris. This will have a significant impact on the controls needed throughout the project and is critical information. Non-contaminated areas could potentially be handled much differently than contaminated areas.
   c. Use Phase I, As-builts, Sanborn Insurance Maps, aerial photographs, city utility or inspection records, etc. in determining the type of structure disposed of at the site, the timeline of the filling operation, the location of foundations, and other information.

5. If the project is subject to 40 CFR 61.145, you must hire a MDH licensed asbestos contractor and follow the asbestos NESHAP renovation regulations as follows:
    a. Submit a Notification of Asbestos-related Work (Notice) to the MPCA and MDH. The Notice must include facility information, owner/operator information, emission control procedures, disposal location, and other information. The Notice includes a ten-working day notification period for MPCA review and processing.
    b. Emission control requirements of 40 CFR 61.145 must be met, including the adequate wetting of the excavated material and preventing visible emissions from the RACM. The area where RACM abatement is being performed must be cordoned off and asbestos warning signs must be clearly visible at all entrances or exits.
    c. Waste handling provisions of 40 CFR 61.150 must be met. It includes the following:
        - adequately wet
        - polyethylene lined and covered trucks or containers
        - proper manifesting, waste generator label, and warning signs used
    d. Disposal at a site operated in accordance with 40 CFR 61.154. If the landfill is operated in the State of Minnesota, ensure it is a MPCA approved solid waste facility permitted to accept the waste.
6. The RACM removal project is completed after all the RACM is removed and a visual inspection is performed by the MDH licensed asbestos contractor or an MDH licensed inspector. In an excavation, this would be for the affected area where RACM was removed. Any RACM not disturbed will not need to be inspected.

If RACM is identified and is not scheduled for excavation, then other portions of the asbestos NESHAP may apply regarding deed recording or cover requirements depending on the information supplied regarding the project and the potential for future RACM exposure. The ability to rework the excavation project to disturb as little RACM as possible will help with disposal and handling costs, avoid the potential for airborne asbestos fibers, and avoid any additional liability of handling or off-site disposal. In some instances, institutional controls for the RACM being left in place may be sufficient. These controls may include deed notification or restrictions.

The owner/operator definition of the asbestos NESHAP includes anyone who "...owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition operation or both." This means that any party or person that meets the above definition is potentially liable (responsible) for compliance with the asbestos NESHAP throughout the excavation. On an excavation project an operator could include the general contractor, environmental specialists, or excavation contractor and the property owner.

Often buildings that were demolished years ago did not perform pre-demolition asbestos abatement or conduct asbestos surveys. Therefore, there is an increased likelihood that ACM/ACWM is intermixed with the demolition debris. The efforts that you make in examining and delineating the extent of the contamination will facilitate your development of an acceptable work plan for proper handling of the contamination in your excavation or development project.

As part of the MPCA's and the asbestos NESHAP's risk-based, environmental impact approach to site cleanup and remediation, minimizing the potential for asbestos fibers to become airborne during the project should be the guiding factor in deciding which remediation method is used. The project should utilize the least intrusive means to handle the RACM and the best control methods available. These principles should guide you in determining the best remediation approach to your project.

Some examples of work practices used to remediate RACM contamination on excavation projects include:

1. Use of a staging area to place suspect contaminated materials for later sorting or disposal which allows the excavation to proceed without constant mobilization for off-site disposal and other asbestos NESHAP requirements.
2. Reworking the project to avoid to the greatest extent possible the disturbance of materials thought to potentially contain RACM.
3. Screening of RACM depending on the use of the screened material, types of RACM, screening test results, condition of the material, etc.
4. Dynamic compaction to get desired engineering of the area for building footings. This would require a deed restriction but avoids any handling and off-site disposal costs.

As a policy, the MPCA wants to avoid wherever possible the creation of inactive asbestos waste disposal sites. The disposal sites would require deed notation and restrictions and are not always a final solution. Alternatives to standard off-site disposal of the RACM must be approved by the MPCA on a case-by-case basis.

This guidance document is not intended as a substitute for reading the rules or regulations and making your own independent determination of its applicability to your excavation project. Examples in this guidance document do not represent an exhaustive listing of types of materials or projects to which the rules or regulations might apply. Visit the MPCA's website at http://www.pca.state.mn.us.