

Demolition & Disposal Best Practices for Blighted or Derelict Residential Structures & Properties

I. Introduction

This guide has been developed to provide information on the procedures for the management, clean-up and disposal of debris generated in the demolition of blighted or abandoned structures and the clean-up of the associated property. The following provides summary information on the manner that such wastes should be managed to comply with federal and state environmental regulations.

II. Initial Site Review & Inspection

When work is to be conducted to clean-up or demolish structures on a blighted or derelict property, the first step that needs to occur is the initial site review and inspection. The inspection should focus and result in key outcomes such as determining the status of the site with respect to asbestos, the potential for lead paint coatings, bulky appliances or other similar materials in the debris, and the identification of other special wastes in the structure or dumped on the property. The demolition of a structure should not occur until the structure has been inspected, the regulatory status of the structure determined, and special materials removed for proper disposal.

Single residences or residential structures with 4 or fewer dwelling units are generally excluded from asbestos regulations applicable to demolition operations. This exclusion means that the single family residence is not required to be inspected for the presence of asbestos by a certified inspector prior to demolition, nor is any asbestos materials that may be present required to be abated from the structure prior to demolition. Even so, asbestos materials could be present and pose a health safety risk during demolition activity. Please refer to the safety precautions that are recommended later in this document.

When multiple residences on a site are being demolished or a single residence with more than 4 dwelling units, asbestos regulations do apply with requirements for notification, removal, handling, disposal, and record keeping. This is also true of demolition of any residential structure that is part of a larger public or commercial project. In such instances, the structures must be inspected for the presence of asbestos by MDEQ certified individuals, the planned demolition activity reported in a written notification to MDEQ, and asbestos containing materials removed from the structure by MDEQ certified individuals prior to demolition. The disposal of "regulated" asbestos waste must occur at a municipal solid waste (MSW) or asbestos approved (NESHAP) landfill, and there must be proper manifesting and recordkeeping on the transport and disposal activity. Questions on the requirements for management of asbestos should be directed to the MDEQ Asbestos section at the telephone number on page 4 of this document.

If the structure was built prior to 1978 then there is a possibility of lead-based paint (LBP) coatings being present in and on the dwelling. If needed, structures and structural components can be tested for LBP with a lead test kit, but if the entire structure is demolished, the LBP paint coatings are not required to be removed prior to demolition. Questions concerning the applicability of lead-based paint regulation should be directed to the Lead-based Paint section at the phone number on page 4 of this document.

Other special wastes on or in the structure or on the property that should be identified in the initial site review include waste tires, bulky appliances, medical sharps, light ballasts, light bulbs, and assorted garbage. The management of these special materials are addressed in the next section of this guidance.

III. Dealing with Special Wastes & Materials

Prior to demolition, certain special materials and wastes should be removed from the structure and managed for disposal separately. In addition, many properties with derelict or blighted structures are often used for illegal dumping of other wastes. These illegally-dumped wastes should also be removed from the property and properly disposed. Depending upon where these wastes are to be disposed of, the wastes may need to be segregated and disposed of separately from the structural debris. This segregation avoids contamination of the structural debris and reduces the amount of waste being landfilled as some materials in these special wastes can be recycled:

- **WHITE GOODS/APPLIANCES:** If large metal appliances such as stoves, refrigerators, hot water heaters and other similar items exist in the house, these appliances should be removed from the house prior to demolition if possible. Such items may be recycled at a local metal salvage dealer along with any other metal components of the structure. Keep in mind that appliances such as refrigerators, freezers, and air conditioning units will likely need to have refrigerant materials evacuated by a certified removal company prior to the unit being removed.
- **LEAD-BASED PAINT (LBP):** As previously discussed, LBP coatings may be on a structure or structural components depending upon the age of a dwelling. LBP does not have to be removed from the structure prior to demolition. Structural components that are suspected to have LBP coatings may remain intact and be disposed of with the structure; however, the receiving disposal facility should be notified that such coatings are believed to be present in the debris for proper management at that facility.
- **HOUSEHOLD FURNISHINGS:** Some structures may contain household furnishings such as mattresses, old furniture, rugs, blinds, draperies and other items. These types of materials may generally be disposed of at the same location as the structural debris – at an MSW landfill or class I rubbish disposal site. Consequently, these furnishings may remain in the house during demolition and be collected and disposed of with the demolition debris, if desired. See the next sections for information on demolition and disposal of the demolition debris.

- **TIRES:** Oftentimes, abandoned properties are used as illegal dump sites. If a property is used for the dumping of tires, there is likely a local option available for disposal of the waste tires. Every county is required by state law to provide a waste tire collection facility and so small amounts of waste tires found on the premises may be transported to the local collection facility for proper disposal after coordination with the county or city operating the waste tire collection program.
- **MEDICAL SHARPS:** Medical wastes or drug paraphilia often can be illegally dumped on a property. Where medical sharps (such as syringes, lancets) are encountered, MDEQ encourages that such materials be containerized and disposed of either through a commercial medical waste management company or through MDEQ's household sharps collection program at a local participating pharmacy or other site which offers collection for medical sharps.
- **ASSORTED MATERIALS:** Other materials that may be found on the site or in a structure that would need to be removed prior to demolition could include PCB-containing light ballasts, fluorescent light bulbs, and assorted garbage. Fluorescent light ballasts manufactured before 1978, or which are not stamped "NO PCBs," should be considered to contain PCBs due to the small capacitor included as one component of the ballasts probably containing polychlorinated biphenyls (PCB). In such instances, ballasts should be managed and disposed of as hazardous waste whereas any ballast manufactured after 1978, or which are stamped "NO PCBs," may be disposed of at an MSW landfill. Concerning fluorescent bulbs, MDEQ does encourage containerization due to the mercury content and recycling of the bulbs, where possible. Other assorted garbage may generally be disposed of at an MSW landfill.

IV. Demolition of the Structure

Once the premises and the structure have been cleared of special waste materials, the demolition process can begin. If the structure does not contain asbestos or if the asbestos has been fully abated, then the demolition of the structure can be conducted as a routine demolition activity. However, all personnel on-site may still need to take proper precautions such as donning hard hats, protective eyewear, and breathing masks.

Even though a residential structure may not be subject to the asbestos regulations, the potential for asbestos disturbance does exist and precautions should be taken. Some of the materials found in older buildings that may contain asbestos include pipe insulation and some types of spray-on insulating materials, ceiling plaster, floor tile, exterior siding, roof tiles and shingles, and sound proofing materials. By sufficiently wetting these materials and keeping them wet during all demolition and handling activity, the possibility of creating an asbestos fiber release and unsafe conditions can be reduced. Workers should wear respiratory protection and no asbestos materials should be crushed, pulverized, abraded, grinded, sawed, or similarly disturbed. It is also recommended that dumpsters be on site at the time of removal of the asbestos so that the resulting materials may be immediately placed in the dumpster and ready for transportation once the

dumpster is full or the debris is completely clear of the site. Wastes that are suspected to contain asbestos that do not originate from a regulated source (i.e. multiple residences on a site or a single residence with more than 4 dwelling units) may be disposed of at a class I rubbish site in the state. However, the receiving rubbish facility should be advised that the incoming loads of waste may contain asbestos.

V. Disposal Options for the Structure

Once the structure is demolished, the resulting debris must be properly disposed of or legitimately recycled. The open burning of materials from demolished structures is strictly prohibited as a means of disposal of said materials. These demolition wastes should be disposed of in the appropriate manner at a MSW landfill, a class I rubbish site, or other appropriate disposal or recycling facility.

These demolition materials may include wood (treated or non-treated), metal, glass, tile, linoleum, carpeting, roofing materials and other similar debris. In addition, some project sites may require the removal of trees, bushes or other vegetation. These types of demolition wastes do not degrade easily in the environment and are considered to be “rubbish wastes.” Rubbish wastes are a subset of solid wastes that can be managed at permitted class I rubbish disposal sites. Because these class I rubbish disposal sites do not have to meet all the design features of a MSW landfill facility, disposal costs may be lower. Therefore, it will be important for the contractor to ensure that incidental amounts of garbage, special materials and non-rubbish materials are segregated for disposal elsewhere. There are approximately 70 class I rubbish sites and 19 MSW landfills operating in the state. A listing of these disposal sites and others can be found on the MDEQ website at www.deq.state.ms.us/solidwaste by navigating to the General Solid Waste Guidance page and looking under the Solid Waste Facility Information section.

VI. Conclusion

If you have additional questions on solid waste management or disposal, please do not hesitate to contact the Waste Division of the Mississippi Department of Environmental Quality at the number below. Also, for more information feel free to visit the following website for further information on construction and demolition debris. This site contains resources and information regarding ACM, LBP, and other materials relating to architectural debris.

Phone: 601-961-5171

Address: Office of Pollution Control
Waste Division
P.O. Box 2261
Jackson, MS 39225

Website: www.deq.state.ms.us/MDEQ.nsf/page/SW_Special_Waste_Guidance?OpenDocument