



Managing Solid Waste Encountered During Excavation Activities

Solid Waste Management Program fact sheet

12/2006

This fact sheet is provided primarily for construction contractors involved with excavating footings, basements, utility trenches and other types of excavation. When excavating, solid or hazardous waste may be encountered due to the presence of pre-law landfills or unknown illegal dumps. This fact sheet provides information and guidance regarding the proper handling and disposal of solid waste uncovered during excavation activities.

Before starting excavation, make the required call to the Missouri One Call System, 1-800-DIG-RITE. Missouri law requires that any person making or beginning any excavation notify all underground facility owners/operators which may be affected by the excavation at least 48 hours, but not more than ten working days in advance, except in the case of emergency. Missouri law defines a "working day" as everyday, except Saturday, Sunday or a legally declared local, state or federal holiday. Missouri One Call Operators are on duty 24 hours a day, seven days a week.

It is also wise to find out as much as you can about the property to reduce the potential for putting workers or the community at risk. If you encounter buried drums, bags, cans, sacks, or soil that appear to contain, or be contaminated with hazardous materials, contractors should cease construction activity. We suggest that you make your first call to the local fire and emergency authorities and your second call to the Environmental Emergency Response 24 hour spill line at (573) 634-2436 (CHEM) to report the discovery and to receive additional direction on how to properly manage the material(s). Some characteristics of hazardous materials are unusual odors, soil staining and sometimes the presence of free product.

Note: This guidance does not apply to solid wastes legally disposed of by an individual resulting from his or her own residential activities on property owned or lawfully occupied by him or her when such wastes do not thereby create a public nuisance or adversely affect the public health as stated in §260.210.1.(1), RSMo.

Waste types

During excavation activities, you may uncover the following types of residuals:

1. Clean fill
2. Recyclable materials
3. General solid waste
4. Hazardous waste



Management requirements differ for each of these waste types. If prior knowledge exists of a pre-law landfill or illegal dump that is planned for excavation, the department's Solid Waste Management Program (SWMP) must be contacted prior to the excavation for determination of proper handling and disposal of uncovered wastes. Contact the Solid Waste Management Program at (573) 751-5401.

1. Clean fill is "uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinder blocks, brick, minimal amounts of wood and metal and inert solids, for fill, reclamation or other beneficial use" [§260.200(4), RSMo].

The following guidance is given concerning "minimal amounts of wood and metal and inert solids." The department's working definition for "minimal amounts" is amounts of less than 10 percent based on the total volume of excavated material. Excavated material containing a total volume of less than 10 percent solid waste may be reburied in the same location from where it was excavated.

Concrete containing wire mesh or rebar may be considered as clean fill. However, exposed rebar should be removed to the maximum extent possible before use in order to prevent a public nuisance or health and safety hazard.

Roofing shingles, sheet rock, lumber or other construction and demolition wastes are not defined as clean fill. When these materials are excavated and comprise 10 percent or greater of the total volume of excavated material they must be properly disposed of using the following guidance in sections 2. Recyclable materials and 3. General solid waste.

2. Recyclable materials are materials that can be recycled into new products (i.e. steel and aluminum). Steel and other metals should be recycled when possible. If recycling is not an option then the materials must be properly disposed of at a permitted landfill or taken to a transfer station.

If you need assistance with locating a recycling facility, contact the Planning Unit of the department's Solid Waste Management Program at (573) 751-5401.

3. General solid waste is solid waste not intended to be recycled. These wastes include non-hazardous construction and demolition waste as well as garbage and refuse. General solid waste must be disposed of at a permitted landfill or taken to a transfer station. It must not be dumped, burned or reburied (except at a permitted landfill) to avoid violating air and solid waste laws and regulations.

Note: When construction/demolition debris is discovered by excavation, workers need to be aware of the potential presence of asbestos containing materials and other types of hazardous waste. Previously demolished buildings may have asbestos containing materials (ACM).

Asbestos can be found in ceiling or floor tiles, insulation or soundproofing on ceilings, pipes, ductwork or boilers, or on the outside as transite siding or in shingles. If these materials are handled improperly tiny fibers can be released into the air, which can be harmful to construction employees and landfill operators. For information on handling and proper disposal of asbestos containing materials, contact the department's Air Pollution Control Program at (573) 751-4817.

Additional information on asbestos requirements may be found at www.dnr.mo.gov/env/apcp/Asbestos.htm. If the ACM is to go to a landfill or transfer station, contact the facility in advance to see if they accept ACM and if they have any special handling or packaging requirements.

4. Hazardous waste is any waste or combination of wastes listed or referenced in Missouri regulation that may pose threat to the health of humans or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, contained gases or sludges. Some hazardous waste, such as mercury and dioxins, may be released as gases or vapors. Hazardous wastes can be the by-products of manufacturing processes like cyanide salts, solvents or lead dust, or simply discarded commercial products like cleaning fluids or pesticides. In regulatory terms, a hazardous waste is one that appears on one of the four hazardous waste lists (F-list, K-list, P-list, or U-list), or exhibits at least one of four characteristics, ignitability, corrosivity, reactivity or toxicity. Mixtures of certain types of wastes can compound the hazard.

If contaminated soil is discovered, workers should withdraw to a safe distance and notify their manager before proceeding. Ideally, the manager will contact environmental professionals to identify the particular hazards with proper investigation and sampling and then develop a site safety plan. In this way, worker exposure to hazardous vapors, liquids or contaminated dust can be minimized.

If the discovered waste is hazardous, it will need to be packaged, marked and labeled appropriately and shipped using a licensed hazardous waste transporter to a permitted facility for treatment or disposal.

Additional information

You may obtain additional information about properly managing excavated wastes from the sources listed below.

Regional Offices

Kansas City Regional Office (816) 622-7000
Northeast Regional Office (Macon) (660) 385-8000
St. Louis Regional Office (314) 416-2960
Southeast Regional Office (Poplar Bluff) (573) 840-9750
Southwest Regional Office (Springfield) (417) 891-4300

Environmental publications are also available at www.dnr.mo.gov/pubs/

Additional considerations and sources

Solid waste requirements are found in the Solid Waste Management Law in Sections 260.200 through 260.345 RSMo, and the regulations in Code of State Regulations, Title 10, Division 80. Copies of the Revised Statutes of Missouri are available through the Reviser of Statutes at (573) 526-1288, or are available online at www.moga.mo.gov.

Hazardous waste requirements are found in the Missouri Hazardous Waste Law in Sections 260.350-260.575, and the regulations in the Code of State Regulations, Title 10, Division 25 that incorporates and references many of the federal regulations in the Code of Federal Regulations, Title 40, Parts 260 through Part 280.

Copies of the Missouri Code of State Regulations are available through the Missouri Secretary of State at (573) 751-4015, or are available online at www.sos.missouri.gov/adrules/csr/csr.asp.

To report a discovery of hazardous materials

First contact your local fire and emergency authorities, then the Missouri Department of Natural Resources' spill line at (573) 634-2436 (CHEM).

For more information

Solid Waste Management Program
P. O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-5401 office
(573) 526-3902 fax
www.dnr.mo.gov/env/swmp

Air Pollution Control Program
P.O. Box 176, Jefferson City, MO 65102-017
1-800-361-4827 or (573) 751-4817 office
(573) 751-2706 fax
www.dnr.mo.gov/env/apcp

Hazardous Waste Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-7560 office
(573) 526-5268 fax
www.dnr.mo.gov/env/hwp