



Targeted Constituents

<input checked="" type="radio"/> Significant Benefit		<input type="radio"/> Partial Benefit		<input type="radio"/> Low or Unknown Benefit	
<input type="radio"/> Sediment	<input checked="" type="radio"/> Heavy Metals	<input type="radio"/> Floatable Materials	<input checked="" type="radio"/> Oxygen Demanding Substances		
<input type="radio"/> Nutrients	<input checked="" type="radio"/> Toxic Materials	<input checked="" type="radio"/> Oil & Grease	<input checked="" type="radio"/> Bacteria & Viruses	<input type="radio"/> Construction Wastes	

Description

Prevent or reduce the discharge of pollutants to stormwater from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees. This management practice is likely to create a significant reduction in heavy metals, toxic materials, and oil and grease.

This best management practice covers only spill prevention and control. Some environmental regulations and business permits require a Spill Prevention and Control Countermeasures (SPCC) Plan to be prepared. Procedures for material delivery and storage are in the following BMPs:

- AM-06 Material Delivery and Storage
- IC-02 Outdoor Loading and Unloading of Materials (bulk)
- IC-03 Outdoor Storage of Materials

Common materials for which spill prevention and control is required includes, but is not limited to:

- Soil stabilizers
- Herbicides and growth-inhibitors
- Fertilizers
- Deicing or anti-icing chemicals
- Fuels
- Lubricants
- Petroleum distillates
- Food products or ingredients
- Food wastes or byproducts

The list of hazardous materials and products that are likely to be found at an industrial is almost endless. The prevention of leaks and spills is inexpensive. Treatment and disposal of contaminated soil or water is very expensive. Therefore, it is in everyone's best interest to prevent leaks.

Approach

Report all leaks and spills, in any amount, which could potentially lead to pollution of a storm drainage system, ditch, stream, vegetation, wildlife, or an outdoor surface exposed to rainfall (such as pavement or dirt). The City of Knoxville and Tennessee Department of Environment and Conservation (TDEC) require immediate notification of any spill or leak, in any amount, to the water or soil. Contact the Knoxville Water Quality Hotline (215-4147) and the TDEC toll-free number in Table AM-07-1.

The terms “reportable quantity” or “RQ” (commonly used in federal regulations such as USDOT and RCRA) do not apply to stormwater monitoring and protection efforts of the City of Knoxville or TDEC. The owner or operator should consult appropriate federal regulations to determine how RQ’s apply for their hazardous waste.

Leaks and spills will require a different response depending on the volume of the material or chemical. Make sure that each employee knows what a “significant spill” is for each material used, and what is the appropriate response for significant and minor spills. A significant spill should be defined after review of the material safety data sheets (MSDS) and any other documentation that presents the contents and proper handling procedures. Typical instructions for a significant spill or leak will be to call for emergency responders and to place life and safety first. A minor spill can usually be handled by spill prevention materials located nearby, without a loss of safety.

General Measures

- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks. Train employees in spill prevention and cleanup procedures for the site. Hazardous materials and wastes must be stored in covered containers and protected from vandalism.
- Establish a continuing education program to indoctrinate new employees. Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety or production meetings). Discuss MSDS information for each material commonly used.
- Designate a foreman or supervisor to oversee and enforce proper spill prevention and control measures. Place a stockpile of spill cleanup materials where it will be readily accessible. Instruct all employees on locations of cleanup materials. Make sure that each employee knows that he is responsible to control leaks and spills using spill containment materials. Do not charge or otherwise garnish pay for employees that use containment materials in the event of a spill or leak.

Cleanup

- Clean up leaks and spills immediately. Never hose down or bury dry material spills. For a quick reference on disposal alternatives for specific wastes, see Table AM-01-1 which is part of the Employee Training BMP fact sheet. Consult AM-15, Vehicle and Equipment Fueling, and AM-16, Vehicle and Equipment Maintenance, for additional discussion of automotive-related spills.
- On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, a damp mop for general cleanup, and absorbent material for larger spills. If spilled material is hazardous, then cleanup materials are also hazardous and must be sent to either a certified laundry or disposed of as hazardous waste.
- Minor Spills

Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be safely controlled by the first responder at the discovery of the spill. Use absorbent

materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly. The practice commonly followed for a minor spill is:

1. Contain the spread of the spill.
2. Recover spilled materials.
3. Clean contaminated area and properly dispose of contaminated materials.

■ **Significant Spills**

Some significant spills may still be controlled by the first responder along with the aid of other personnel on site. This response will require the immediate cessation of all other activities to clean up spills immediately. The practice commonly followed for a significant spill is:

1. Notify the site owner or foreman immediately. Immediate notification to authorities is required for all significant spills. In addition, a written report and other information are generally required during and after the incident.
2. Determine if available spill response personnel are qualified to perform the cleanup in a safe manner. Alert additional trained personnel as necessary, including 911 for emergency response and/or a Hazmat team. Contact emergency numbers must be posted throughout facility. Table AM-07-1 contains a list of emergency and regulatory phone numbers for use in developing an emergency response plan.
3. Contain spread of the spill in a safe manner when possible. If required, the services of a spill cleanup contractor or Hazmat team shall be obtained immediately. Use a reputable licensed contractor to handle large spills.
4. If the spill occurs on paved or impermeable surfaces, clean up using dry methods (absorbent materials, cat litter, rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
5. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil after the incident is contained.
6. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

- For spills or leaks into a body of water or an adjoining shoreline, the contractor shall notify the TDEC general hotline (1-888-891-8332) and the Knoxville Water Quality Hotline (215-4147).

Maintenance

- Keep ample supplies of spill control and cleanup materials on site and available. Update SPCC Plan and MSDS sheets as changes occur in types of chemicals used.

Limitations

- Procedures and practices presented in this BMP are general. The site owner/contractor shall identify appropriate practices for specific materials used or stored at the project site.

References

30, 31, 33, 34, 35, 100, 137 (see BMP Manual Chapter 10 for list)