



Minnesota
Pollution
Control
Agency

Cleaning up small petroleum spills

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Petroleum spills of more than five gallons must be reported to the Minnesota Duty Officer by calling (651) 649-5451 or (800) 422-0798.

This fact sheet provides general guidance for cleanup of small petroleum spills on land. The Minnesota Pollution Control Agency (MPCA) considers small spills to be those of 50 gallons or less. The quantity spilled must be reliably calculated to determine whether it is appropriate to utilize this guidance. Depending on the circumstances and the health, safety and environmental risk, a more stringent cleanup protocol may need to be followed.

It is the responsibility of the spiller to ensure an effective cleanup and proper management of all wastes generated. With the exception of used oil, waste generated from petroleum spills that have been reported and cleaned up immediately is exempt from Minnesota's Hazardous Waste Rules.

Stop the spill

Upon discovery of a petroleum spill, the first step is to stop the spill or leak if this can be done safely. Turn off nozzles or close valves from the leaking container or system. Use a wooden plug, bolt, band or putty on a puncture-type hole.

Containment and recovery

Contain the spill if it can be done safely. Buckets, pails or kiddie pools can be used to collect flowing liquid from a leaking valve or punctured tank. Soil, sand or granular sorbent can be used to build a berm around the flowing liquid on the ground. State law requires companies to be prepared to respond to spills. Therefore, stocking basic spill-response equipment is expected.

Once contained, the liquid must be recovered. If company personnel are trained and can perform these tasks safely, recovery should begin immediately. Otherwise, a contractor may be needed to assist the company. All free liquid should be recovered using the appropriate pumps, vacuum trucks, or sorbent. The recovered liquid product can then be recycled or possibly reused. Other wastes that are generated must be properly managed and disposed. Oil-soaked sorbent can be sent to the following types of facilities for treatment or disposal: municipal waste combustor, asphalt or thermal treatment, land treatment, composting or landfill. For guidance on each, request the [Spill debris disposal options](#) fact sheet.

Remediating contaminated soil

Contaminated soil can be remediated in two ways: either excavate and ship the

soil to a treatment or disposal facility or treat the soil in place. To excavate contaminated soil, remove all soil that has visible staining or petroleum odor. In some instances, a soil sample may need to be collected and analyzed by an environmental laboratory to confirm that an effective cleanup has occurred. When you report the spill, ask the MPCA Emergency Response Team member whether you need to collect a sample. Excavated petroleum-contaminated soil can be sent to the following types of facilities for treatment or disposal: (1) land treatment, (2) composting, (3) asphalt or thermal treatment, or (4) landfill.

Land treatment, also known as “land farming” or “thin-spreading,” involves applying the contaminated soil to native soil, mixing, aerating the soils, and sometimes adding fertilizer to promote biodegradation of the contaminants.

For thin-spreading 10 cubic yards or less, follow the guidance in the [*Thin-spreading small quantities of petroleum-contaminated soils*](#) fact sheet.

If the quantity of soil to be treated is greater than 10 cubic yards, then you must follow the MPCA guidance for land treatment and Minn. R. ch. 7037, Petroleum Contaminated Soil Management. If the soil is to be treated in place, written permission from the landowner must be obtained. The treatment site should not be in a pedestrian walkway. The site should have a slope of less than 6 percent. Surface waters, drinking water wells and sewers should be at least 200 feet away. The affected soil should be disked, bladed or raked into the native soil and periodically thereafter until biodegradation has occurred (usually in one year).

Composting is the controlled microbial degradation of petroleum-contaminated soil. This is optimized by constructing the pile in a manner that promotes bacteria and fungi to flourish. For specific guidance, see the Composting of petroleum-contaminated soil fact sheet.

Some asphalt plants or similar facilities in Minnesota are permitted to treat petroleum-contaminated soils. This is called “thermal treatment.” These plants burn or vaporize the contaminants from the soil and then incorporate the treated soil into asphalt or fill material. The MPCA maintains a list of these permitted facilities (see the [*Thermal treatment of petroleum-contaminated soil*](#) fact sheet).

Some municipal and industrial solid waste landfills can accept petroleum-contaminated soil for disposal. Call your local facility for approval and protocols.

After the cleanup has been completed, submit a report describing the incident, the material spilled and amount, cleanup steps performed, and measures implemented to prevent the incident from reoccurring. Include diagrams of the affected area, excavation dimensions, and amount and types of wastes generated. Waste disposal documentation should include method of disposal and location.

For more information

For more information on spill prevention, cleanup and disposal, call the MPCA at (651) 296-6300 or (800) 657-3864 and ask for a member of the Emergency Response Team or go to www.pca.state.mn.us/cleanup/pubs/ertpubs.html on the internet.

More information is also available on the Web site of the U.S. Environmental Protection Agency at www.epa.gov/oilspill/.