

Materials Storage

Best Management Practices Fact Sheet

Goal/Purpose:

Short Term

Prevent the discharge of oils, greases, metals, sediment, and other contaminants from material and waste storage areas into the storm water conveyance system.

Long Term

Provide designated covered and/or bermed storage for all types of materials, including gravel, sand, etc., to minimize contact with storm water.

Nonhazardous materials stored outdoors should be placed on a pallet and covered. Hazardous chemicals should be stored on a secondary containment unit and covered with a waterproof tarp.

Simple storage sheds with a roof, liquid-tight floor, and perimeter berm will usually prevent storm water from becoming contaminated.

Tipping the drum minimizes liquid from collecting on top of drums.

Selection of Best Management Practice Activities

To comply with the city's Storm Water Pollution Prevention Program (SWPPP), specific best management practices (BMPs) must be implemented at municipal facilities and should be selected or developed on a case-by-case basis as required.

This BMP addresses only storm water protection requirements. Any group that stores, uses, handles, or disposes of hazardous substances must follow the appropriate local, state, and federal regulations. Contact the North Dakota Department of Health (NDDH) or Minnesota Pollution Control Agency (MPCA) for specific storage related questions at (701) XXX-XXXX.

Activity

General

1. Always store materials and wastes indoors or under cover whenever possible. Covers and upgradient perimeter berms that prevent contact with storm water will minimize contaminants that leave the site. These berms also make cleanup of any spills or leaks easier.
2. Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs. Stockpiling materials, which often must be stored outside and exposed to storm water, increases the possibility of pollutants flowing off-site.
3. Store chemicals away from doors and out of traffic pathways. Simple storage sheds with a roof, liquid-tight floor, and perimeter berm will usually prevent storm water from becoming contaminated.

4. Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
5. Transfer the contents of a leaking container promptly to another container; make sure the new container is appropriately labeled. OSHA mandates labeling for all containers.
6. Always store used parts (i.e., vehicle, electronic, mechanical) under cover to prevent the leaching of any materials into storm water runoff.
7. Stockpiles of gravel, asphalt, sand, salt, and other raw materials should be stored on a paved surface. The stockpiles should be situated to prevent storm water flowing through the stockpile.
8. Cover stockpiles and put in upgradient perimeter berms to deflect the storm water. Install downgradient perimeter berms to prevent sediment and other contaminants from leaving the stockpile area.
9. Install concrete or wood stalls with covers to create permanent facilities for raw materials (such as gravel, sand, asphalt).
10. Install perimeter controls around sediment dewatering sites.
11. Minimize storage of scrap metal by disposing of it periodically. Cover the stockpile to reduce the release of any potential contaminants.
12. Cabinets and containers exposed to the weather must be made for exterior use; interior-grade cabinets and containers will rust or deteriorate, contributing contaminants to storm water runoff.
13. Conduct preventive maintenance on secondary containment structures, pipes, valves, pumps, and other equipment to ensure proper operation and to identify potential leaks.
14. Liquid retained in bermed areas or in secondary containment units must be discharged to an oil/water separator, filtered, or properly disposed of off-site. The actual disposal method will depend on the composition and hazardous nature of the liquid.
15. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to handle a spill, unless the liquid will be completely contained, cleaned up, and disposed of in the sanitary sewer or off-site as appropriate for the waste type. There should be no discharge to storm drains or pavement.
16. Return equipment and material to their proper storage place after use.
17. Schedule regular cleaning of outside storage areas and yards, preferably before the start of the rain season. At least once a year, review the stockpiled equipment and supplies (materials). Often there are unusable materials at the back of the storage area.

Usable materials should be stored to indicate possible use and to minimize contact with storm water. Unused or unusable material should be removed as soon as possible. Develop a plan to regularly dispose of unneeded materials.

18. Always have spill response equipment available near the storage of liquid or hazardous substances.

19. Use containers that meet National Fire Prevention Association (NFPA), North Dakota Department of Transportation (NDDOT), or Minnesota Department of Transportation (MNDOT) standards for holding hazardous substances.

20. Follow the Uniform Fire Code and NFPA standard when storing chemicals that are flammable, ignitable, or reactive.

21. Handling of infectious materials and wastes shall comply with the appropriate federal, state, and local rules and regulations.

Hazardous Materials and Wastes

22. Storage of hazardous materials and wastes must comply with the appropriate federal, state, and local rules and regulations. This includes, but is not limited to, the following items:

- a. Hazardous wastes must have secondary containment with capacities as specified by regulation.
- b. Containers must be kept closed except when substances are being added or removed.
- c. Conduct inspections of the storage areas, secondary containment, and containers for closed lids, leaks, correctly completed labels, and chemical compatibility.
- d. Maintain a Hazardous Materials Business Plan or Hazardous Materials Management Plan.
- e. Maintain a Spill Prevention, Control, and Countermeasures Plan for facilities that store petroleum.
- f. Dispose of or recycle hazardous waste within the time lines set by the regulations based on a site's generator status.
- g. Hazardous substances must be stored to prevent unauthorized people from accessing the area.
- h. Transport of hazardous wastes between city sites must be handled and documented as required by regulation.
- i. Completely label all containers holding hazardous materials and wastes.
- j. Do not mix different types of hazardous wastes together; it usually increases disposal costs.

Contractor Requirements

1. Include specific contract language to inform contractors that they must comply with federal, state, and local storm water rules and regulations as required by the Clean Water Act. Amend existing contracts to include this language, if not already included.

Employee Training

Staff training may include regular tailgate sessions at those facilities that load and unload significant amounts of chemicals or raw materials. Tailgate sessions should provide information on the selected storm water BMPs and methods for preventing discharge of pollutants into the storm drain system. Encourage employees to suggest modifications for existing BMPs and to create new BMPs; their suggestions will likely reduce labor and increase storm water runoff protection. If the above-suggested BMPs require some modification to work for you or do not cover some aspect of your operations or facility, call the city storm water representative at (XXX) XXX-XXXX for assistance.

Storm water BMP training may be incorporated with other training sessions such as safety training. Records of the training sessions should be kept for at least three years. These records should include who conducted the training, who attended, subjects discussed, and the date(s) of the training.

For additional information on this and other BMPs or the city's responsibilities under the National Pollutant Discharge Elimination System (NPDES) Phase II federal regulations for storm water discharges, see <http://www.XXXX.XXXX> or contact the city storm water representative at (XXX) XXX-XXXX for assistance.