STANDARD AND SPECIFICATIONS FOR CONSTRUCTION SITE POLLUTION PREVENTION

Definition: Practices implemented to reduce the potential for stormwater runoff to transport construction site wastes that may contaminate surface or ground water. In the event of a spill, control the source of the spill, remediate, and properly dispose of hazardous substances.

Purpose: To prevent the generation of nonpoint source pollution from construction sites through effective handling, storage and disposal of building materials and other construction site wastes. To prevent hazardous wastes from contaminating surface and ground water, remediate spills, and dispose of contaminated substances/materials properly.

Conditions Where Practice Applies: All earth disturbing activities which disturb greater than 5000 square feet where hazardous substances/materials are stored and used.

Planning Considerations:

Many potential pollutants other than sediment are associated with construction activities. These include pesticides (insecticides, fungicides, herbicides, and rodenticides); fertilizers used for the establishment of vegetation; petrochemicals (oils, fuels and asphalt degreasers); construction chemicals (concrete products, sealers, and paints); wash water associated with these products; paper; wood; garbage and sanitary wastes. Targeting potential spill areas, minimizing exposure to rainfall, and lengthening flow paths to receiving waters are essential when developing a spill prevention and control plan.

The variety of pollutants present, spill potential and the severity of their effects are dependent on a number of factors:

1. **The nature of the construction activity.** For example, potential pollution associated with fertilizer usage may be greater along a highway or at a housing development than it would be at a shopping center development due to greater landscaping requirements. Most large construction sites will have fuel tanks on-site for re-fueling construction vehicles and equipment.

2. **The physical characteristics of the construction site.** The majority of pollutants generated at construction sites are carried to surface waters via runoff. Therefore, the factors affecting runoff volume, such as the amount, intensity, and frequency of rainfall; soil infiltration rates; surface roughness; slope length and steepness; and area denuded, all contribute to pollutant loadings.

Proposed 2023 Update

3. **The proximity of surface waters to the nonpoint pollutant source.** As the distance separating pollutant-generating activities from surface waters decreases, the likelihood of water quality impacts increases.

Practices

The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above. On all construction sites, an individual should be designated to oversee and enforce waste management procedures and spill prevention practices.

1. Construction site wastes - general

a. Designate a waste collection area onsite that does not receive a substantial amount of runoff and does not drain directly to a waterbody. Storage areas should not be located near inlets or stormwater management conveyance systems.

b. Reduce the sources of waste to the greatest extent possible.

c. Ensure that containers have watertight lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible. Dumpsters and other containers should not be hosed out. Let the trash-hauling contractor clean out containers.

d. Schedule waste collection to prevent containers from overfilling. During the demolition phase of construction, provide extra containers and schedule more frequent pickups.

e. Collect, remove and dispose of all construction site wastes at authorized disposal areas. A local environmental agency can be contacted to identify these disposal sites.

f. Provide proper sanitary facilities for construction workers.

2. Hazardous Materials

a. Local waste management authorities should be consulted about the requirements for handling and disposing of hazardous materials. Right-to-know and reporting requirements for chemicals and chemical compounds must be followed.

b. The entire product should be used before disposing of the container. A hazardous waste container should be emptied and cleaned before it is disposed of to prevent leaks. If product remnants are wet or moist, let them dry before cleaning and disposing of the container.

c. The original product label should never be removed from the container as it contains important safety information. Follow the manufacturers recommended safety measures and method of disposal, which should be printed on the label.

d. If excess products need to be disposed of, they should never be mixed during disposal unless specifically recommended by the manufacturer.

e. Hazardous waste containers should be placed in secondary containment.

f. State or local solid waste regulatory agencies or private firms should be consulted to ensure the proper disposal of contaminated soils that have been exposed. Some landfills might accept contaminated soils, but they require laboratory tests first.

3. Pesticides

a. Follow all federal, state, and local regulations that apply to the use, handling, or disposal of pesticides.

b. Store pesticides in a cool, dry, covered area lined with plastic sheeting. Check containers for leaks or deterioration. Maintain a list of products in storage.

c. Warning signs should be posted in storage areas, and areas recently treated.

d. Follow the recommended application rates and methods.

e. Applicators should wear suitable, protective clothing, in accordance with the law.

f. Pesticides should be used only in conjunction with the principles of Integrated Pest Management (IPM). Pesticides should be a tool of last resort; methods that are the least disruptive to the environment and human health should be used first.

g. Disposal of excess pesticides and pesticide related wastes must conform to registered label directions set forth in applicable federal, state and local regulations.

h. Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage, and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.

4. Petroleum Products

a. Store petroleum products and fuel for vehicles in covered areas, lined with a double layer of plastic sheeting or similar material.

b. Vehicle fueling operations should be established in a designated area. The aboveground fueling tanks need to be set in an impervious berm with a capacity 10 percent greater than that of the largest container.

c. Routine inspections of the tank and the secondary containment are required.

d. Clearly label all products.

e. Keep tanks off the ground with lids securely fastened.

f. Oil and oily wastes such as crankcase oil, cans, rags, and paper dropped into oils and lubricants should be disposed of in proper receptacles or recycled.

g. Waste oil for recycling should not be mixed with degreasers, solvents, antifreeze, or brake fluid.

5. Nutrient Management

a. Store fertilizers in covered areas not subject to stormwater runoff.

b. Apply fertilizers at the minimum rate and to the minimum area necessary, preferably based on soil tests.

c. Work fertilizers and liming materials into the soil to depths of 4 to 6 inches.

d. Use detergents only as recommended, and limit their use onsite. Wash water containing detergents should not be dumped into the storm drain system. It should be directed to a sanitary sewer or be otherwise contained so that it can be treated or properly disposed of.

6. Education

a. Educate employees regarding the potential environmental impacts of improperly managed construction waste material.

b. Educate workers on site about proper spill prevention.

c. Train construction workers in proper materials storage, handling and disposal.

d. Offer hands-on training classes in spill remediation.

e. Distribute or post informational material regarding chemical control.

Maintenance:

Containers or equipment that may malfunction and cause leaks or spills should be identified through regular inspection of storage and use areas. Equipment and containers should be inspected regularly for leaks, corrosion, support or foundation failure, or any other signs of deterioration and should be tested for soundness. Any found to be defective should be repaired or replaced immediately. Ample supplies and spill kits need to be readily available on site for spill remediation. Perform periodic reconnaissance of the construction site to identify any additional waste material or waste sources that need to be addressed.

Standard Detail & Specifications

Construction Site Pollution Prevention

Delaware NPDES Discharge Permit

General Permit for Discharge of Stormwater from Construction Activities

((Project Name))

((NOI Permit Number))

((Agency Plan Approval ID))

((Contact Name & Number for Additional Site Information))

((Contact Name & Number to Obtain Copy of Approved Plan))

If you observe indicators of stormwater pollutants
in the discharge or in the receiving waterbody, call the
DNREC Spill Notification 24 HR Hotline at

1-800-662-8802

Example Construction General Permit (CGP) Signage

NOTES:
1. Minimum sign size 2' x 2'
2. Minimum text size 1"
3. Sign must be posted at a safe, publicly accessible location close to construction site
4. Sign must be visible from the public road nearest the active construction site
5. Signs posted within a DelDOT or other public road right-of-way (ROW) must be in accordance with all local and/or State requirements in regards to safety, location, orientation, etc.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.6.1** Sheet 1 of 4

Proposed 2023 Update

Construction Site Pollution Prevention

Notes:

The Construction Site Pollution Prevention Plan includes the following elements:

1. **Material Inventory**

   Document the storage and use of the following materials:

   a. Concrete
   b. Detergents
   c. Paints (enamel and latex)
   d. Cleaning solvents
   e. Pesticides
   f. Wood scraps
   g. Fertilizers
   h. Petroleum based products

2. **Good housekeeping practices**

   a. Store only enough product required to do the job.
   b. Store all materials in a neat, orderly manner in their original labeled containers and covered.
   c. Do not mix different substances.
   d. When possible, use all of a product prior to disposal of the container.
   e. Manufacturers' instructions for disposal should be strictly adhered to.
   f. Designate someone to inspect all BMPs daily.

3. **Waste management practices**

   a. Collect and store all waste materials in securely lidded dumpsters in a location that does not drain to a waterbody.
   b. Salvage and/or recycle waste materials whenever possible.
   c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Construction Site Pollution Prevention

Notes (cont.)

d. Dispose of all trash in accordance with all applicable Delaware laws.

e. Littering is strictly prohibited. Trash cans should be placed at all lunch spots and recycle bins should be placed near the construction trailer.

f. If fertilizer bags can not be stored in a weather-proof location, they should be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.

4. Equipment maintenance practices

a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.

b. If performed on-site, wash vehicles with high-pressure water spray without detergents in an area contained by an impervious berm.

c. Use drip pans for all equipment maintenance.

d. Inspect equipment for leaks on a daily basis.

e. Direct washout from concrete trucks into a temporary pit for hardening and proper disposal.

f. Equip fuel nozzles with automatic shut-off valves.

g. Dispose of all used products such as oil, antifreeze, solvents and tires in accordance with manufacturers' recommendations and local, state and federal laws and regulations.

5. Spill prevention practices

a. Identify potential spill areas and contain them in covered areas with no connection to the storm drain system.

b. Post warning signs in hazardous material storage areas.

c. Perform preventive maintenance on all tanks, valves, pumps, pipes and other equipment as necessary.

d. Prioritize low or non-toxic substances for use.

Construction Site Pollution Prevention

Notes (cont.)

e. Prominently post contact information for reporting spills through the DNREC 24-Hour Toll Free Number.

6. Education

a. Include Best Management Practices (BMPs) for construction site pollution control as part of regular progress meetings.

b. Information regarding waste management, equipment maintenance and spill prevention should be prominently posted in the construction trailer.

CONTACT INFORMATION

DNREC 24-Hour Toll Free Number	**800-662-8802**
DNREC Solid & Hazardous Waste Management Section	**302-739-9403**