



OUTDOOR STORAGE OF RAW MATERIALS AND WASTE – BMP FACTSHEET 1.2

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Definition and Purpose:

Prevent or reduce the discharge of pollutants from outdoor storage areas. To provide guidance on the correct maintenance practices, operations, and pollution prevention practices when storing materials outdoors.

The goal of regulating outdoor storage facilities is to prevent spills and leaks by requiring facility owners to comply with various safeguard requirements. These include safeguards such as secondary containment, corrosion protection, protection from natural elements, and leak detection.

Outdoor storage is used when storing materials indoors is not feasible. Many facilities on Ft. Belvoir have designated outdoor storage areas which house both raw materials and waste materials. It is important that these materials are stored and maintained properly so that pollutants do not migrate by stormwater into our natural waterways.



Approach:

The General Permit authorizes certain new and existing discharges of stormwater to receiving waters in accordance with your facilities effluent limitations and includes the development and implementation of BMPs (Best Management Practices). In order to insure BMPs are being implemented, visual inspections and sampling of outfalls will be performed periodically and during the course of the SWPPP annual inspections.



Existing and New Facilities: When complaint investigations or routine stormwater audits for current facilities indicate impacts to water resources due to poor management practices, ENRD can take action to address any problems identified. Infrastructure and equipment, in addition to BMP implementation, are evaluated during inspections. To minimize the potential for compliance issues and to reduce liability, the recommendations in this document should be followed.

Pollution prevention

Many of the problems associated with contamination of local waterways stem from the improper maintenance and management of outdoor storage areas. The proper management and preventative maintenance practices for outdoor storage facilities will keep equipment in good repair and will prevent harmful releases.

***These are the basic operation guidelines ALL outdoor storage facilities must follow:**

1. Store materials on paved or impervious surfaces. (free of cracks or gaps)
2. Protect materials stored outside from rainfall and wind dispersal. Materials should be stored indoors, if feasible.
3. Have secondary containment for all HAZMAT waste and material containers.
4. Containers must have proper labeling and secure lids.
5. Have good housekeeping practices



Outdoor material coverage

- Cover materials with a fixed roof or a temporary waterproof covering made of polyethylene, or polypropylene.
- Keep covers in place at all times when work is not occurring.
- Make sure materials are protected from wind and rain and that covers are secured.
- If the stockpiles (such as mulch, sand, or other raw materials) are too large and cannot feasibly be covered and contained. Implement erosion control practices at the perimeter of your site and at any catch basins to prevent erosion of the stockpiled material from moving off-site.

Outdoor material ground placement

- Store materials on paved or impervious surfaces. (free of cracks or gaps)
- Protect materials stored outside from stormwater run-on. Construct a berm around the perimeter to prevent the run-on of stormwater from adjacent areas as well as runoff of stormwater from the material.



- In the case of laydown yards, stabilize any large piles so that materials do not become loose.
- Cover and contain the stockpiles of raw materials to prevent stormwater from running into the piles.
- Minimize pooling of water. Slope paved areas to minimize the pooling of water on the site, particularly with materials that may leach pollutants into stormwater, such as compost, logs, and wood chips (a minimum slope of 1.5 percent is recommended).
- In the case of salt storage, do not let salt come in contact with stormwater, salt should be stored in a corrosive resistant, lined, and covered container.

Secondary containment



The purpose of secondary containment is to prevent materials from flowing onto the ground or into the water in the event of a spill or leak. Spill containment measures, including secondary containment are required by the Environmental Protection Agency (EPA) at outdoor storage facilities. Secondary containment:

- Must be large, high and strong enough to hold the contents of the largest container plus 10% for local precipitation.
- Must be constructed or lined with an impermeable material that will hold contents and prevent the contents from seeping into the ground.
- Double walled aboveground storage tanks are not required to be located within a secondary containment area provided they have a high liquid level alarm, and a flow restrictor or automatic shut off device



Outdoor storage facilities must be managed such that no releases can reach drains, groundwater or surface waters. If there is a floor drain, it must be plugged unless it is connected to a holding tank, or approved in a discharge permit that the facility has obtained from the Virginia Department of Environmental Quality. Your facility SWPPP should contain documentation of any permits held.

Good housekeeping and maintenance

- It is essential that the entire **facility be kept clean, orderly** and free of unnecessary items.
- **Address problems promptly:** Make repairs to tanks and equipment as soon as problems are noted.

- Any leaking or dripping should be addressed **immediately**.
- **Scheduled Maintenance:** Scheduled maintenance should be performed on all ASTs, drums, barrels, containers, and secondary containment set-ups.
- **Detailed maintenance records** should be kept to ensure proper upkeep on equipment and must be available for audits and inspections.
- Spill Preparedness and Response: Spill response equipment (**spill kits**) should be **accessible at all times** and in good working condition. Make sure a copy of Ft. Belvoir's spill response procedures is easily accessible. Any used supplies should be replaced immediately.
- **Safety:** Fire extinguishers must be kept pressurize and should be shaken every month. All other safety equipment must be in good working order.
- **Security:** Any holes in fence, locks on gates and burned out light bulbs should be repaired or replaced as soon as the deficiency is noted.



Spill response – In the event of a spill or leak follow the appropriate Spill response

procedures posted at your facility or refer to your facility SWPPP.

1. Survey the incident – from a safe distance identify the source of release and the material being released.
2. Call the Ft. Belvoir fire department if spills are greater than 5 gallons.

If **ANY** amount of leaked materials has entered a storm drain or waterway **call the Ft. Belvoir fire department at 703-781-1800 and DPW Environmental Department at 703-806-3694**

For questions and additional information contact DPW / ENRD at 703- 805-0048 or 703-806-3847

