

UNIVERSITY OF NORTH ALABAMA STORMWATER MANAGEMENT PROGRAM

GOOD HOUSEKEEPING STANDARD OPERATING PROCEDURES

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Purpose: Establish municipal operations procedures for good housekeeping practices designed to prevent the entry of pollutants into the storm sewer system.

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1. EXTERNAL BUILDING MAINTENANCE

- a. Prior to job start up, assess area's sensitive receptors and drainage, determine where waste water and/or chemicals will run, and identify a method(s) to protect inlets with appropriate absorbent sock/pad or mat. Coordinate the management of used absorbent materials through the Dept. of Environmental Health and Safety (EHS) as necessary.
- b. Communicate with the Maintenance and/or Grounds Department to determine if wash water can be directed to vegetated areas.
- c. Do not undertake pressure washing and surface cleaning activities during rain events or when rain is forecasted.
- d. When feasible, minimize water use by using high pressure, low volume nozzles; this reduces the volume of wastewater generated.
- e. Instead of and/or in advance of pressure washing, employ dry methods to address surface stains (sweep, vacuuming, and use of absorbents).

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- f. Consider surface cleaning only using water; when using detergents and cleaning agents, use the least toxic product needed to get the job done.
- g. Send all wastewater, including water containing detergents or chemicals, to the sanitary sewer.
- h. Do not allow discharges from chemical fire suppression systems to enter the storm sewer system.
- i. Discharges from certain line tests, fire pumps and hydrant flushing may be discharged to the storm sewer system under the following conditions:
 - Discharge does not contain chemicals, solids, or residual chlorine.
 - Discharge water has not been used for another process such as washing, heat exchange or manufacturing.
 - Discharge does not cause erosion.
- j. Elevator sump pump discharge must not enter the storm sewer system.
- k. Upon discovery, repair and clean-up hydraulic fluid leaks from elevators or lifts.
- l. Mop water and cleaning water should be disposed of through the sanitary sewer never by the storm drains.
- m. Materials should not be poured, transferred or handled outdoors near a storm drain.
- n. Use a ground cloth or secondary container for paint opening, mixing, and tool cleaning.
- o. Enclose spray-painting operations to minimize wind drift and overspray.
- p. Do not clean paintbrushes or tools near a storm drain.
- q. Promptly clean any spills of paints, cleaners, solvents or chemicals.

2. VEHICLE FUELING

- a. Know the location of emergency shutoff mechanism.
- b. Minimize drips to the ground surface as much as possible.
- c. If fuel spills occur, immediately use dry cleanup methods.
- d. Regularly inspect fuel equipment and secondary containment for corrosion, leaks, and structural failure.
- e. Spill containment and cleanup supplies should be stored on site and available for use.

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- f. Do not top off fuel tanks.
- g. Do not hose down a fuel spill.

3. MATERIALS STORAGE FACILITIES AND STORAGE YARDS

- a. If possible, materials stored outdoors should be stored under cover of a permanent structure.
- b. If a permanent cover is not feasible, cover materials with a tarp or similar waterproof durable covering when the material is not being actively worked.
- c. Do not locate storage areas adjacent to or within 50 feet of storm drain inlet or water conveyance.
- d. When covering storage piles is not feasible, the storage area should be sloped to prevent runoff.
- e. Clean around material handling areas at the end of loading activities to prevent spilled material from entering the storm sewer.
- f. Use secondary containment for stored liquid materials to prevent unintended leaks or spills from entering the storm sewer system.

4. EQUIPMENT AND VEHICLE WASHING

- a. Wash equipment and vehicles only in designated areas.
- b. Regularly maintain the water collection system.
- c. Clean up spills and leaks of vehicle fluids and chemicals as soon as discovered and do not allowed to enter the drain system.

5. VEHICLE AND EQUIPMENT MAINTENANCE AND REPAIR

- a. Move leaking vehicles indoors or under cover.
- b. Use drip pans for leaking vehicles.
- c. Clean parts in the appropriate parts washer.
- d. Clean all spills and leaks promptly with dry methods.
- e. Maintain oil/water separators according to manufacturer's recommendations.

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- f. Develop a routine maintenance schedule for all vehicles.
- g. Place used oil into the labeled oil containers in the Vehicle Maintenance Shop. Other vehicle fluids such as antifreeze, hydraulic fluids, and fuel, must be collected in separate containers and labeled. Containers must be kept closed and stored in a manner that prevents stormwater pollution, such as within secondary containment. Contact the EHS Department if there are questions.
- h. Inspect vehicle parking areas regularly for spills, trash and debris. Trash and debris can become floatable litter, which is one of the primary pollutants of concern at UNA.

6. STREET SWEEPING

- a. Perform street sweeping as needed to prevent the entry of sediment or other pollutants into the storm sewer system.
- b. If powered street sweepers are used, operate and maintain sweepers according to manufacturer's recommendations.
 - Make sure baskets and hoses are functional prior to beginning route.
 - Do not release wastewater/debris into the storm sewer system.
 - Clean out solid debris and manage them as solid waste.

7. MAINTENANCE OF MUNICIPAL ROADS

- a. Locate and block storm drain inlets (within 25 feet and/or down gradient from) during maintenance work such as concrete curb and gutter work, resurfacing, paving, striping/markings, or saw cutting.
- b. Place covers, wattles, sand bags, or filter fabric around inlets to protect them from entry of wastes, dusts, overspray or slurry.
- c. Inspect site at the beginning of the day and end to ensure operations are not contributing sediment or other pollutants to the flow line or storm drain.

Concrete Cutting and Pouring

- d. When saw cutting concrete, use the minimum amount of water. Let the waste slurry dry and then sweep it up before leaving the location. A wet vacuum may also be used to pick up the waste slurry immediately after cutting is complete. Do not allow slurry to reach storm drains.
- e. Designate a "Concrete Washout Area" that is as far as possible from any surface waters, storm drain inlets or drainage ditches and is located in a low area where wash water will pool and soak into the ground.
- f. Concrete trucks must washout in the wash out area or into a container such as a kiddie pool or wheelbarrow. They may also washout at the concrete plant.
- g. Maintain the wash out area, inspect it for clean out needs, and check for run-on and run-off.

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- h. The debris from the wash out area must be taken to a permanent disposal site when the washout is full and when the project is complete.

Painting and Striping

- i. Schedule painting, marking, and striping projects during dry weather only. Cease all activities when rain threatens
- j. Block nearby storm drain inlets (within 25 feet and/or down gradient of project).
- k. Promptly clean up any spills of paints, cleaners or other chemicals.

Re-surfacing or Paving

- l. Re-seal or pave only on dry days when no rain is expected. Cease all activities when rain threatens.
- m. Protect or block downstream storm drain inlets (within 25 feet) from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave covers or berms in place until the job is complete

8. FUEL AND OIL HANDLING AND RECEIVING

Bulk Delivery

- a. There shall be no smoking or open flames while fuel is being handled or managed.
- b. No flammable liquid shall be transferred while the engine is running unless the vehicle engine is required for pump operation.
- c. Immediately address and clean up spills and leaks with dry material and disposed of properly. Spill cleanup supplies shall be on hand where bulk deliveries are received.
- d. Protect storm drains from fueling areas using control devices such as covers, berms, and dikes.
- e. The person responsible for scheduling fuel deliveries is also responsible for putting the control device(s) in place on the day of the delivery, as well as removing the control device(s) and storing when fueling is complete.
- f. Bulk delivery drivers must remain at the truck during the entire delivery process.

Drum Delivery

- g. Carefully unload and handle drums to prevent damage.
- h. Inspect drums immediately following unloading for damage and leaks.

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- i. Damaged drums shall not be accepted for use and any leaks or spills immediately corrected.
- j. Waste oil vendors must have the appropriate permits in order to pick up, haul, and recycle waste oil.

9. STORAGE AND DISPOSAL OF PESTICIDES, HERBICIDES, FERTILIZERS, CHEMICALS, & WASTE MATERIAL

- a. Materials should be stored under cover and tightly sealed. Liquids should be stored within secondary containment.
- b. Properly label all materials; keep them in the original containers when possible.
- c. Spills and leaks should be immediately cleaned using dry cleanup methods.
- d. Do not use water to remediate spills.
- e. Sweep pavement or sidewalks where solid fertilizers or other products have fallen.
- f. Application shall be performed by or under the direction of a certified applicator.
- g. Train employees regarding handling, storage and use of pesticides, herbicides and fertilizers and the proper method of container disposal.
- h. Triple rinse all pesticide and herbicide containers prior to disposal. Contact the EHS Department if excess herbicides or pesticides need to be disposed and for storage and disposal questions.

10. VEGETATION CONTROL, CUTTING, REMOVAL, AND DISPOSAL OF CUTTINGS

- a. Avoid disturbing underlying soil when removing vegetation if possible.
- b. If soil is disturbed when removing vegetation, assess the area for the need for erosion and sediment control.
- c. Removed vegetation should be disposed of at least daily.
- d. Use mulch or other appropriate erosion control measures on exposed soils.
- e. If possible, mow when the area is dry.
- f. Inspect sidewalks, streets and other hard surface areas for grass clippings following mowing or trimming. Use a blower or broom to collect and remove clippings from hard surfaces.
- g. Mulch grass clippings in place whenever possible.
- h. Equipment should be periodically cleaned to prevent the buildup of material that could become dislodged and enter the storm sewer system.