Reasons for Procedure

The University of Virginia (UVA) has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes UVA to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act.

Since storm drain systems are not connected to a sanitary sewer treatment plant, water traveling through the storm drain system flows directly to local streams, rivers and lakes untreated. An illicit discharge to the storm system is generally defined as any discharge that is not composed entirely of stormwater. UVA’s MS4 Program “shall include all procedures developed by the operator to detect, identify, and address nonstormwater discharges to the MS4.”

1.0 Purpose

To reduce exposure to airborne dust and reduce sediment leaving construction areas, wet sawing, grinding, and drilling/coring techniques are preferred for brick, stone, asphalt, concrete and other hard materials and surfaces. The resulting water generated does become contaminated with the resulting sediment and therefore may not be discharged untreated to the storm sewer system or local streams. This SOP has been written to describe best practices for control of the wet saw cutting wastewater.

2.0 Scope

This procedure applies to wet sawing, grinding, and drilling/coring operations by Facilities Management (FM) personnel and contractors.

3.0 Responsibility

3.1 Facilities Management Environmental Resources

Environmental Resources is responsible for working with staff to keep this policy up to date and revised as needed.

3.2 Managers and Supervisors

Managers and supervisors of those shops conducting wet sawing, grinding, and drilling/coring operations must provide training to the employees conducting these activities. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.3 Personnel Performing the Job

Personnel and contractors must follow the correct procedures in accordance with this SOP.
4.0 Procedures

4.1 Do not allow wet sawing, grinding, and drilling/coring generated wastewater to enter storm drains or watercourses without first being filtered. In addition, the sediment shall not be allowed to remain on the pavement after the operation has ceased.

4.2 Block Drains - Locate all nearby storm drain inlets, culverts, and catch basins through which slurry discharges may enter a waterway. Prevent unfiltered concrete slurry from entering storm drains or receiving waters by placing silt fence, straw bales, straw wattles (fiber rolls), sandbags, or gravel dams around storm structures.

4.3 Minimize Slurry Movement - Slurry and sediment from saw cutting operations should be confined to the immediate work area by using sand bags, temporary berms or other diversion structures. All controls should be put in place before the start of cutting operations. Make sure the controls can handle the amount of water that will be used. Minimize the tracking of slurry off site by cars and pedestrians.

4.4 Remove Slurry - Remove and treat all slurry and runoff from the saw cutting operation as soon as possible. Don’t leave slurry to be washed away by rain untreated or to set. Sweep up or shovel and dispose of residual sediment trapped behind control measures.

4.5 Rather than doing on-site filtration of saw cutting slurries, the material can be contained, vacuumed and disposed. If a shop vacuum is used, clean the filter and chamber out to prevent the concrete dust from hardening inside the unit.

4.6 Water used for cleaning of tools and other equipment must be captured and properly disposed of in the sanitary sewer or in a concrete washout bin.

5.0 Annual Review of Procedure/Training

Managers are responsible for reviewing this procedure with all employees who have these job duties at least once each year.

6.0 Regulatory impacts

Water containing these residues is considered an illicit discharge if it is allowed to enter the storm sewer system. Any discharge into UVA’s storm system may also impact the City’s or County’s storm sewer system. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances.

*Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version. Current versions of all SOPs are maintained on the UVA Environmental Resources website.*