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.”

UVA also has at Title V Air Permit that requires that implementation of procedures to reduce and eliminate fugitive dust emissions. This includes dust generated by saw, drilling, cutting, and demolishing concrete and masonry materials.

1.0 Purpose

This procedure describes best practices for controlling wastewater from wet sawcutting. Best practices reduce exposure to airborne dust and reduce sediment leaving construction areas. Wet sawing, grinding, and drilling/coring techniques must be used when working with brick, stone, asphalt, concrete and other hard materials and surfaces. The water generated by these techniques is contaminated with sediment and therefore may not be discharged untreated to the storm sewer system or local streams.

2.0 Scope

This procedure applies to wet sawing, grinding, and drilling/coring operations by all University personnel and contractors performing work on UVA property.

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

4.2 All nearby storm drain inlets, culverts, and catch basins should be located. Any drains through which slurry discharges could enter a waterway should be protected. In no case should unfiltered concrete slurry be allowed to enter a storm drain or receiving water. Unfiltered concrete slurry can be kept 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 Slurry and sediment from sawcutting 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. Controls should be designed to handle the amount of water that will be used. Efforts should be made to minimize the potential for tracking of slurry off site by cars and pedestrians.

4.4 All slurry and runoff from the sawcutting operation should be removed and treated as soon as possible. Residual sediment trapped behind control measures must be swept up or shoveled and disposed of. If a shop vacuum is used, the filter and chamber must be cleaned to prevent the concrete dust from hardening inside the unit.

4.5 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 Review of Procedure/Training
Managers are responsible for reviewing this procedure with all applicable staff at least once every 24 months.

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 interconnected storm systems. 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.*