



**Standard Operating Procedure:
Building Fire Sprinkler System Flushing**

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Version: 5

Review Frequency:

Scope

The purpose of this procedure is to describe the proper means for capture and disposal of contaminated water resulting from flushing fire sprinkler systems. This procedure applies to the maintenance and operation of the fire sprinkler systems on UVA property. For fire sprinkler system flushing associated with the initial commissioning of a building, follow the Dechlorination SOP.

Responsibility

Anyone conducting building fire sprinkler system flushing on UVA property must comply with this procedure.

Procedures

1. First flush water is not allowed to be discharged to paved surfaces or to enter storm drains directly and should be directed to the nearest sanitary sewer inlet or manhole for disposal. For each project, staff performing the work will determine the best method for disposing of the first flush water.
2. If the area lacks the capability to drain this first flush water to the sanitary sewer, other containment methods may be effective for the prevention of storm water pollution. Such permissible practices may include portable containment, collection with a wet-vacuum, collection in a bucket or drum, discharge to vegetated areas, or portable filtering devices.
3. Consultation with Environmental Resources regarding alternative options is encouraged whenever discharge to the sanitary is not available.
4. Once the disposal piping is set up for the water to discharge to the sanitary sewer, flush the system until the water runs clear. At this point, the flushing can be redirected to the surface, preferably to a vegetated area, so long as the flushing is managed in a manner to avoid an instream impact.

Rationale

The flushing of sprinkler systems will usually result in the discharge of some water that would not be considered potable even though the source of the flush water is the drinking water system. Water that is initially flushed from sprinkler system may contain high levels of iron, zinc, oils, and biological contaminants. The initial water discharge during these flushing operations is generally of much poorer quality (black or dark brown in color) than the water that is discharged later in the process. This first flush water cannot be discharged to surface waters or directly to stormwater conveyances.