

Paved Surface Maintenance



Issue Date: August 2018

WINTER PAVEMENT MAINTENANCE

SCM-PP/GH-17



Description

Clearing and deicing of snow and ice from roads during the wintertime can introduce salt, sediments, floatables, metals, and PAHs to stormwater runoff. Implementing the following management practices can help minimize the introduction of pollutants into the storm drain system and waterways.

NYC MS4 SPDES Permit Requirement(s)	IV.G Pollution Prevention/Good Housekeeping for Municipal Operations IV.H Industrial/Commercial Sources IV.I Trash and Debris Control
KEY SELECTION CRITERIA	
Targeted Activities	<ul style="list-style-type: none"> • Winter pavement maintenance • Winter road deicing activities
Performance Goals	<ul style="list-style-type: none"> • Minimize pollutants entering storm sewers and waterways • Implement good housekeeping practices
Most Effective Controls <small>(more detail on page 2)</small>	<ul style="list-style-type: none"> • Place deicing agents at the right time and location • Calibrate salt spreaders routinely • Educate and train operators on hazards of over-salting
RELATED CONTROL MEASURES AND REGULATIONS	
Related SCMs	<ul style="list-style-type: none"> • SCM-PP/GH-2 • SCM-PP/GH-6 • SCM-PP/GH-10 • SCM-PP/GH-16 • SCM-PP/GH-20 • SCM-PP/GH-26 • SCM-PP/GH-27
Other Regulatory Requirements*	<ul style="list-style-type: none"> • NYS DEC Technical and Operational Guidance Series (TOGS) DOW - 5.1.7 & 5.1.11 • 15 RCNY Chapter 19

EFFECTIVENESS FOR TARGETED POLLUTANTS / IMPAIRMENTS	
✓	Floatables
✓✓	Sediments
	Nitrogen
	Phosphorus
	Pathogens
	Oxygen Demand
	PCBs
✓	Metals
✓	Petroleum Products/PAHs
✓✓ = Good ✓ = Fair = Poor	

CONTROL STRATEGIES	
✓	Cover/Contain
✓	Clean Up
✓	Reduce/Minimize
✓	Product Substitutions
✓	Manage Runoff
	Capture/Treat/Dispose
✓ = Yes	

*Note: RCNY: Rules of the City of New York; NYCRR: New York Codes, Rules and Regulations; CFR: Code of Federal Regulations

Listed regulatory requirements are not inclusive of all legal requirements applicable to NYC facilities. Local, state, and/or federal regulations should be consulted to ensure full regulatory compliance.

Control Strategies/Suggested Practices

COVER/CONTAIN

- Mix, handle and load chemicals and materials in covered areas or where stormwater and brine controls are in effect.

CLEAN UP

- Clean equipment of loose salt and residue manually before leaving the loading area. Do not wash into storm sewer. If permitted, wash into sanitary sewer.†

REDUCE/MINIMIZE

- Calibrate salt spreaders routinely to ensure proper application and placement for the required use.
- Educate and train operators on hazards of over-salting to the environment and in proper deicer application techniques.
- Control spreading speeds and patterns to reduce scatter into areas where it is not needed, and concentrate material where it is most effective.
- Inspect roads regularly for evidence of excessive salt and evidence of runoff entering storm drains, such as salt stains.
- Plow snow or slush before applying materials to increase effectiveness of the materials.
- Return unused materials to stockpiles and avoid heavy “end of beat” applications that empty the load. Keep accurate records of materials usage to allow monitoring and improvement of operations.
- Reduce plowing speed in sensitive areas to prevent exposure to deicing material.
- Identify locations where snow fences may reduce blowing snow situations along highways to reduce the need for deicing.

PRODUCT SUBSTITUTION

- Use of a living snow fence (e.g. shrubs or plants) is environmentally sound and should be considered as an alternative to a standard snow fence. Standard snow fence materials can add to litter that reaches waterways.
- Alternative materials, such as sand or gravel, should be used in especially sensitive areas, except where porous paving or infiltration practices are in place.

MANAGE RUNOFF

- Place barriers along streams or direct drainages to route deicing material away from waterways.

CAPTURE/TREAT/DISPOSE

N/A

† Facility needs to ensure that all discharges to the sewer system comply with DEP regulations, as well as applicable DOB regulations.

References

1. NYSDEC, *Division of Water, Roadway and Right-of-Way Maintenance Management Practices Catalogue for Nonpoint Source Pollution Prevention and Water Quality Protection in New York State*, May 1997
2. NYSDOT, ESB, *Environmental Handbook for Transportation Operations, A Summary of the Environmental Requirements and Best Practices for Maintaining and Constructing Highways and Transportation Systems*, June 2011
3. WNY Stormwater Coalition, Erie County Department of Environment and Planning, *Pollution Prevention/Good Housekeeping for Municipal Operations: A Guidance Document of Best Management Practices and Inspection Checklists*