



**Environmental Guideline  
Deicing Streets**

<i>Document Identification Number:</i>	CCD-301.03.07
<i>Version:</i>	2.0
<i>Revision Date:</i>	October 29, 2008
<i>Contact Person:</i>	Sr. Engineering Associate (Clayton Goodwin) DPW Street Maintenance
<i>Controlled Copy Location:</i>	Not applicable

**Activity Description**

Application of deicing and anti-icing materials to pavements during winter snow removal operations.

**Potential Environmental Risks**

The following environmental concerns are associated with this activity:

- Overuse and/or inappropriate application of deicing fluids
- Improper or inappropriate disposal of off-specification or waste deicing fluids.
- Contamination of soil
- Contamination of surface water
- Contamination of groundwater
- Air pollution (from sand)

Potential consequences from performing the activity incorrectly:

- Property damage, personal injury, damage to the environment.
- Possible regulatory non-compliance, Notice of Violation and related [financial & non-financial] penalties.

**Critical Operating Requirements**

A. General Requirements

**Prohibited Activities**

- Improper disposal of deicing or anti-icing fluids.
- Overuse or improper use of deicing chemicals.
- Noncompliance with the Stormwater Management Plan (SWMP).
- Use of organic-based fluids.
- Use of urea.

**General Considerations**

- Each operator conducting pavement deicing activities is responsible for understanding the applicable regulations and managing their activities accordingly; this Environmental Guideline is meant as guidance only and does not supersede any regulations.
- Use appropriate deicing products for the application and understand the specifications for choosing an appropriate deicing product.

Unless otherwise specified at the beginning of the document, printed copies of this document are UNCONTROLLED. Always refer to the online EMS document library prior to use to ensure you are using the most current version.



**Critical Operating Requirements**

A. General Requirements

**Training Requirements**

- All operators of pavement deicing equipment must be adequately trained in the proper application procedures.

**Storage & Material Handling Requirements**

- Utilize appropriate spill prevention equipment for containers, vessels, hoses, transfer areas, etc.
- Store all deicing fluids in containers in good condition. When stored outdoors, storage areas should be managed to minimize the potential of spills/leaks from discharging to Waters of the State.
- Do not waste fluid: The amount of the deicing agent applied should be appropriate to the need and not excessive. The actual quantity and mix of deicing agent applied is at the discretion of the operator.

B. Planning *Responsible: Operator*

B1. Develop and implement a training program to train deicing staff in the proper use and application of deicing and anti-icing materials.

B2. Maintain adequate supplies of spill response equipment and materials in accessible locations near areas where spills are likely to occur.

C. Critical Tasks *Responsible: Agency*

Street Maintenance must inform DEH DEQ of materials utilized for pavement deicing or anti-icing.

D. Emergency Response *Responsible: Operator*

If a spill occurs, refer to Environmental Guideline Spill Response.  
• **Call 311 immediately (during normal business hours) or at 303-206-0001 after normal business hours for all spills.**

E. Inspection and Maintenance Requirements *Responsible: Operator*

Maintain deicing equipment according to the manufacturer’s recommended maintenance schedule.

**Expected Records / Outputs**

<u>Record / Output</u>	<u>Instructions</u>
MSDSs and Chemical Use Records	<ul style="list-style-type: none"> <li>• Purchase and use records for deicing fluids should be maintained at Street Maintenance.</li> </ul>
Evidence of training	<ul style="list-style-type: none"> <li>• While formal certifications are not always necessary, some form of “proof-of-training” (such as sign-in sheets and handouts) is expected and should be maintained on file at Street Maintenance.</li> </ul>

Unless otherwise specified at the beginning of the document, printed copies of this document are UNCONTROLLED. Always refer to the online EMS document library prior to use to ensure you are using the most current version.



## References

### Phone Numbers

- **311 (for Spill Reporting during normal business hours).....3-1-1**
- DEH DEQ Emergency Response (after normal business hours)..... (303) 206-0001
- Gary Lasswell (DEH DEQ Environmental Compliance Supervisor)..... (720) 865-5440
- Paul Bedard (Facility Compliance Program Administrator) ..... (303) 880-9865
- Clayton Goodwin (DPW Street Maintenance, Sr. Engineering Associate) ..... (720) 865-6804

### Guidance Materials (list not limited to the following)

- MSDSs
- Deicing fluid and application equipment manufacturers specs
- Snow Plowing Standard Operating Procedure
- WMD MS4 Permit
- MS4 Commercial/Residential Management Program

### Training Materials (list not limited to the following)

- CCD-302.04 Hazardous Waste Generator and Stormwater Training
- CCD-DPW-302.02 On-the-Job Training – Fleet Maintenance

### Related Environmental Guidelines (list not limited to the following)

- CCD-301.03.26 Spill Response
- CCD-301.03.10 General Regulated Waste Management

### Applicable Regulations (list not limited to the following)

#### Federal:

- 40 CFR 50-95 Clean Air Act Regulations
- 49 CFR 100-185 DOT Regulations
- 40 CFR 122-124 NPDES Regulations for Storm Water Discharges

#### State:

- Air Quality Control Commission Regulation 16, Street Sanding Emissions (5 CCR 1001-18)
- CDPHE Colorado Discharge Permit System (CDPS) Permit Number COS-000001

#### CCD Revised Municipal Code:

- Sec. 56-102. Disposal of wastes and use of public sewers.

#### DPW Rules and Regulations Governing Sewerage Charge and Fees and Management of Wastewater:

- Sec. 7.01. Prohibited Discharges to the Storm Sewer System

### Other Documents

- Equipment Operation standard operating procedures