Activities 170 through 179
Snow and Ice
General Instructions

This section includes activities involved in controlling and removing snow and ice on the State Highway system. Work involved with designated Winter Recreation Parking (Sno-Park) Locations is discussed in the Other Direct Maintenance Activities section of this Guide.

Within the funding limits of the performance budget, control and remove snow and ice on the State Highway system as described in the:

- District's Winter Operations Plan and
- ODOT *Desired Conditions of Maintenance Features on State Highways*.

Activities 171 and 176 involve use of products as pre-wetting, anti-icing, or deicing agents. Only use those products that have been approved by the State Maintenance Engineer. The Transportation Maintenance Manager must perform or assure several things about those products, including:

- Post, or otherwise have easily available, a Material Safety Data Sheet (MSDS) for each product located at each storage location.
- Maintain a copy of the bill of lading for each shipment at the storage location.
- Store and use each product in a manner that preserves its integrity, prevents unacceptable leakage or spillage, and that complies with recommendations of the manufacturer.
- Inspect and sample each product as described in the ODOT *Winter Maintenance Chemical Sample Protocol*. This involves:
    - Visually inspect each shipment. Address any apparent problems, including visible contaminants, abnormal odor or color, etc. Seek assistance from the Clean Water Program Unit in the Office of Maintenance.
    - Sample each shipment using sampling procedures and containers furnished by the Clean Water Program Unit in the Office of Maintenance.
    - Send the samples to the ODOT Materials Laboratory. The Materials Laboratory will test random samples and provide the results to the Office of Maintenance.
- Record information about use of each product in a format, such as a sanding log discussed in Activity 171, to allow approximate locations and quantities of use to be determined.

ODOT may share information about the use and test results of the products to the Oregon Department of Environmental Quality and others.

Before beginning any type of excavation work in areas where utility or other non-ODOT facilities could be buried, contact the Oregon Utility Notification Center (OUNC) so the facility owners can mark the location of their facilities.

Winter Operations Plan

The District Manager, with each Transportation Maintenance Manager in the District, should develop the District's Winter Operations Plan and update the plan by November 1 of each year. The District's Winter Operations Plan may include, but is not limited to:

- Level of service goals for each highway.
- Names and telephone numbers to contact each maintenance employee, Transportation Maintenance Manager, the District Manager, and other personnel or managers that would be involved in winter operations or that may need to be notified in the event of an incident or emergency. (To maintain the security of private information, do not include home phone numbers or addresses in copies provided to individuals or agencies outside of ODOT.)
- Available equipment and location of sanding material, anti-icing or deicing products, etc.
- Procedure to accomplish repairs to winter maintenance equipment.
- Work needed prior to winter, such as installing snow poles, "Snow Zone" signs, etc.
- Probable shift assignments of maintenance personnel.
- Need for training regarding winter maintenance activities or situations.
- Assignment of priorities, by highway and location, for maintenance activities, including routes used by school buses. This could involve cooperative maintenance by or for adjacent maintenance areas or Districts.
- Identification of "Snow Zones" and the procedure to install and remove signing to indicate travel conditions and/or need for traction tires or chains. This should address the travel conditions identified in OAR Chapter 734 Division 017 and ODOT's ability to conditionally close a roadway.
- Names and contact telephone numbers of personnel from adjacent Districts or other public agencies that could be involved in or affected by winter situations.
- Procedure to respond to an incident or emergency, including needed notification of managers or others.
- Procedure to close a highway or limit its use.
- Names and contact telephone numbers of contractors or equipment suppliers that may furnish equipment, operated or unoperated, if needed.

Although a copy of the District's Winter Operations Plan may be furnished to the Region Manager and State Maintenance Engineer, each District is preparing its Winter Operations Plan for its own use in:

- Understanding the needs of winter maintenance in the District and for each of its highways.
- Identifying resources available to perform the work and respond to maintenance needs.
- Identifying priorities of performing activities or responding to situations.
- Identifying resources that could be available from other sources if needed.
- Identifying points of contact with other public agencies in the area that may be involved.
- Identifying procedures to respond to incidents or emergencies and to close highways if needed.

The District Manager should furnish the names, contact telephone numbers, ODOT radio call sign, and similar information to the Transportation Operations Center (TOC), so the TOC can contact appropriate persons to respond to situations.

The District Manager generally only needs to furnish the telephone number of the TOC to law enforcement agencies, local governments, and others. The TOC can then contact the appropriate Transportation Maintenance Manager, District Manager, or other designated contact person.

Prior to the onset of winter conditions, the District Manager and Transportation Maintenance Manager should, among other things:

- Identify the snowplow, sander, anti-icing or deicing product applicator, or other attachment to be attached to or mounted on specified vehicles.
- If blowing snow may be a problem, maintain roadside vegetation to minimize drifting and maintain or repair snow fence as appropriate.
- Assure that drainage facilities are ready for increased flows from rainfall and runoff.
- Install snow poles as appropriate.
- Assure that specialized winter equipment, such as snow blowers, are in good working order.
- Assure that adequate supplies of sanding material or other anti-icing or deicing material are available when needed.
- Contact the ODOT Construction Project Manager for each active construction project on the State Highway system in the maintenance area to assure that the project will be in suitable condition to allow snow and ice control work.
- Assure that needed communications, including radios, will be available for use.
- Assure that normal repair parts are available for use.
- Maintain or install “Snow Zone” signs.
- Assure that employees receive needed training on winter maintenance.

Assure that information on current road and weather conditions is properly and timely reported to the Transportation Operations Center for posting on ODOT’s TripCheck website.

Do not perform work for another public agency or a private entity unless ODOT has entered into an agreement to perform the work or the work has been properly approved. As appropriate, record all costs incurred and assure that ODOT bills the responsible party for those costs.

Refer to the Emergency Operations and Incident Response section of this Guide for discussion on crashes, disabled vehicles, and other incidents that may be encountered while performing winter work.

<u>Use of Chains on ODOT Vehicles</u>

Studded tires are not used on ODOT vehicles. Normally tire chains are used on ODOT vehicles when chains or traction tires are required. However, ODOT vehicles are

exempt from the chain requirement when used in the course of snow and ice control. Some vehicles, such as the 4x4 Autocar, may provide adequate traction without chains even though other vehicles require chains for the same situation. The driver of ODOT vehicles is responsible to decide when to use tire chains on vehicles doing snow and ice control.

Generally, it is good judgment to use tire chains when:

- You have a problem in starting, stopping, or turning on ice or snow.
- Operating around stalled vehicles on a steep grade or superelevation.
- Operating during breakup of a snowpack.

When in doubt about whether to use tire chains, it is probably better to choose to use tire chains.

Use of Rotobeams or Other Overhead Warning Lights

Operate the vehicle's rotobeam or other overhead warning lights when actively plowing snow or applying sand or anti-icing or deicing product. Turn on the rotobeam or warning lights in advance of starting the plowing or application work to adequately warn other vehicles.

Rotobeams or other warning lights are not normally used for routine patrol work.

Also see discussion in the Safety section of this Guide about other use of the rotobeam or other warning lights.

Closure of a Highway or Restriction on Use

Refer to the Oregon Administrative Rule 734-020-0150 for authority delegated to the Chief Engineer, Region Manager, District Manager, and Assistant District Manager to conditionally close a highway or to restrict its use by specific vehicles or types of vehicles.

The Region Manager also has delegated authority, in consultation with the Motor Carrier Transportation Division Manager, to establish criteria for and post limits on weight or length restrictions for highway traffic. The authority is included in the Oregon Administrative Rules Chapter 734, Divisions 050 and 070 with authority subdelegated under ODOT Subdelegation Order SUB-5 located on the ODOT Intranet.