

INSTRUCTIONAL MEMORANDUM

IOWA DEPARTMENT OF TRANSPORTATION MAINTENANCE DIVISION

CHAPTER: SNOW AND ICE CONTROL

NO: 8.100

TITLE: SNOW AND ICE REMOVAL OPERATIONS

APPROVED: Lee Wilkinson

EFFECTIVE DATE: October 15, 1984

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I. Purpose:

To provide guidelines in establishing criteria and priorities for snow and ice removal operations.

II. Definitions:

A. Reasonably Near Normal Surface – A pavement surface that is sufficiently free of snow, ice or slush to permit maintaining reasonable vehicle control when the vehicle is operated within the framework of existing laws and regulations. Some isolated spots or strips of packed snow or ice may be present.

B. Service Level – The maintenance classification given to a section of highway as identified on the current Office of Maintenance Service Level Map and as amended by agreement with cities and counties.

C. Anti-icing – Operations when overtime is authorized.

D. Phase 1 – Operations when overtime is authorized.

E. Phase 2 – Operations that are normally conducted during regular working hours.

III. References:

A. DOT Standards for Maintenance Activities 675, 676, 677, 678, 680, 681 and 682.

B. DOT PPM 610.02, Maintenance of Primary Road Extensions

C. DOT PPM 610.13, Use of Inspection Service Personnel for Emergency Snow and Ice Removal.

D. DOT PPM 610.17, Traffic Control on Interstate Highways During Severe Winter Storms and Other Emergencies.

E. DOT PPM 800.02, Cooperation with Department of Public Safety.

F. DOT PPM 800.04, Maintenance of State Park and Institutional Roads.

IV. General Guidelines:

- A. Snow and Ice Control operations should be performed as set out in the DOT Standards for Maintenance Activities and as set out in agreements negotiated with counties and cities.
- B. Crew shifts including supervisors should be limited to a maximum of 12 continuous hours of work, except that employees may work 16 hours on their first shift going into a storm that has been forecast to be of lengthy duration.
- C. When the DOT's Weather Advisory Service forecasts a prolonged storm moving into the area, considerations should be given to splitting crew shifts. The Garage Area Supervisor will determine whether or not to split shifts and will inform the District Maintenance Manager if requested. If it is decided to use split shifts, part of the crew may be sent home to rest, with the anticipation that they will be called back to work later.
- D. During clean-up operations, the Department is not required to load or haul snow from primary road extensions, but may do so if considered necessary by the Garage Area Supervisor/District Maintenance Manager to maintain traffic flow. Some loading or hauling of snow may be necessary at bridges, interchanges or other locations where snow storage capacity is limited.

V. Procedures:

A. Snow and Ice Removal Operations

To make the most effective use of resources available, a system of service levels has been established.

It is the objective to conduct operations on Service Level A, B, C and D highways capable of achieving the following, whenever practical. The general priorities for the various operations are as follows:

Priority No. Phase Description of Work

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| 1. | 1 | Begin treatment of frost and ice on bridge decks within 3 hours after the Department has actual notice of the condition. Response should be based on the service level assigned to each segment of the highway system. |
| 2. | 1 | Begin treatment of frost on roadways and freezing rain within 3 hours after the Department has actual notice of the condition. This work is to be scheduled on the basis of the service level priorities assigned to each segment of the highway system. |
| 3. | 1 | Begin treatment or plow isolated frost, ice and snow on pavement surfaces within 3 hours after the Department has actual notice of the condition. The work is to be scheduled on the basis of the service level priorities assigned |

to each segment of the highway system.

4. 1 Clear blockages and lane restrictions on the basis of the Service Level priorities assigned to each segment of the highway system.
5. 1 On Service Level A-B highways and public used crossovers, achieve a reasonably near normal surface condition within 24 hours after a storm ends.
6. 1 On Service Level C highways, achieve a reasonably bare inside wheel path after all other Phase 1 operations have been completed.
7. 1 On Service Level D highways, achieve a reasonably bare inside wheel path after all other Phase 1 operations have been completed.
8. 2 Remove snow from the traffic side of extended or continuous traffic barriers and from attenuators in gore areas to expose the barriers during regular working hours. Overtime for this work may be approved by the Garage Area Supervisor.
9. 2 Remove snow from driveways and parking areas of weigh stations and rest areas. Overtime for this work may be approved by the Garage Area Supervisor. Clean scale platforms by hand during regular working hours as time permits. No sand or salt is to be used on driveways and ramps within 40 feet of the scale platform.
10. 2 On Service Level C highways, achieve a reasonably near normal surface condition within three working days after Phase 1 operations are completed.
11. 2 On Service Level D highways, achieve a reasonably near normal surface condition after Phase 1 operations and work on service level C or higher highways are completed. Work should be conducted during regular work hours as time permits.
12. 2 On Service Level A-B highways, plow shoulders as necessary during regular working hours within three working days after a reasonably near normal surface condition is attained on these highways.
13. 2 On Service Level C-D highways, plow shoulders and public uses crossovers as necessary during regular working hours as time permits.
14. 2 Remove snow from curbs and gutters of bridges and from the traffic side of traffic barriers and attenuators at spot locations during regular working hours as time permits.
15. 2 Remove snow from raised medians and islands as necessary to delineate traffic lanes during regular working hours as time permits.

B. Snow and Ice Removal Operations on Level E Highways

1. On Service Level E highways all snow and ice removal operations will be performed to the level of service as determined by the Department and described for paved routes in the city or county where agreements have been negotiated for this work. Modifications of city or county standards for primary road work may be included in the agreement. The level of service shall be described in the city or county standards or policies for snow and ice removal operations and shall be attached and a part of the city or county agreement.

C. Operations Limitations

1. Snow and ice removal operations may be suspended during periods of extremely poor visibility with notifications to District Maintenance Managers and law enforcement as provided in DOT PPM 800.02.
2. When benefits from continued snow and ice operations are expected to be minimal, the Garage Area Supervisor may elect to reduce or suspend operations until weather conditions improve which allows for better use of resources. Notification will be made to District Maintenance Managers and law enforcement as provided in DOT PPM 800.02.
3. Weather conditions following storms, drifting, blockages, lane restrictions, lack of resources or abnormal conditions may preclude achieving the objectives outlined above.
4. Phase 2 operations may require special procedures such as transferring snow from one side of a roadway to the other or using rotary snow plows to widen out heavily drifted areas. The affected areas should be returned to the appropriate service level condition as soon as practical after the operation has been completed.