

The City of Topeka's Winter Snow Plan and Operations

The City of Topeka Public Works Department strives to provide effective snow and ice removal to allow motorists to travel safely within the City during winter weather conditions. While these conditions exist, it is expected that motorists will exercise the appropriate caution necessitated by the weather.

Every snowstorm is unique and the snow plan for each storm is directly related to the amount, type and severity of the precipitation.

1. Major Streets

1.a Major streets include all arterials, collector streets for residential areas, that provide access to schools and all bus routes. On major streets, the goal is to clear these streets of ice and snow as soon as possible. Work on these streets begins at the start of a storm and continues until the streets can be traversed safely. The time necessary to achieve this goal varies with the amount of snow and the length of the snowfall.

1.b Any snow or ice event is treated initially with a pre-treatment process using biodegradable Ice Ban melt solution, salt, or salt/sand mixture spreading operation. If conditions and accumulations warrant, the operation switches to plowing snow.

2. Residential Streets

2.a Residential streets are local streets providing access to homes and some businesses. These are not high volume through streets. Snow and ice control efforts are geared to provide access to residential and business areas. Residential streets are not addressed until major streets are clear or are sufficiently clear for traffic to use with normal caution. Smaller plows will attempt to make one pass through residential areas providing a one lane plow thoroughfare down the middle of the street.

2.b During icy conditions, residential streets are treated with a mixture of sand, gravel and salt to provide traction and some deicing. These applications of biodegradable Ice Ban solution, sand, gravel and salt mixture vary from one to many times, depending on the pavement conditions and the availability of materials.

2.c The Public Works Department strives to make at least one pass on every residential street within 24 hours after the snowfall has ended.

3. Interstate System

3.a The Kansas Department of Transportation removes the snow and ice from the Interstate System.

4. Complaints

4.a The Street Maintenance Division handles complaints as soon as possible during a snowstorm. You may call the office at 368-3111 (24 hour line)

5. Light Snow or Freezing Rain

5.a When snow or freezing rain begins to fall, Public Works crews will begin to spread the biodegradable Ice Ban solution, sand, salt, and other de-icing materials on all major streets, bus routes and the streets to all of the City's hospitals and schools. Although a parking ban is usually

not necessary during this stage of a storm, if the storm gets worse and a parking ban becomes necessary announcements will be made through radio and television stations.

6. Heavy Snow – “Snow Emergency”

6.a When a snowstorm becomes so severe that plowing is necessary, the Public Works and Parks Department crews and several private contractors will begin plowing all major streets. It is during this time that a “Snow Emergency” may be declared by the Mayor/City Manager. During a “Snow Emergency” parking is banned on all designated Emergency Snow Routes. Cars parked or stalled on these streets will be subject to a fine and may be towed at the owners expense. During all inclement weather conditions, you should keep informed through the local media. The news media will report when a "Snow Emergency" is in effect. However, if you should have a question please call the Public Works Street Maintenance Office at 368-3111.

Wintertime Reminders

1. Clear Your Sidewalk

1.a Topeka's Municipal Code requires all sidewalks to be shoveled within 24 hours after a snowstorm. Walks left un-shoveled may be cleared by City crews at the expense of the property owner. We need your cooperation to keep your sidewalks safe and passable.

CITY CODE Sec. 130-581. Duty of abutting property owner or occupant.

(a) It shall be the duty of the owner, occupant or agent of any lot or piece of ground adjoining or abutting upon any street, avenue or public way within the city where a sidewalk is located, except as otherwise provided in division 2 of this article, either in front of or at the side, or both, of such lot or adjoining ground, to clean and remove therefrom all snow and ice within 12 hours after the same shall have fallen or accumulated on the sidewalk; provided, that if the fall or accumulation occurs in the nighttime, the snow and ice shall be removed not later than six hours after sunrise.

(b) Where ice or compacted snow is of such character as to make removal of such ice or snow from any sidewalk practically impossible, the sprinkling of sand, ashes or other noncorrosive or non-ice-forming chemical may be applied within the time limits for the removal of snow and ice from sidewalks, and the same shall be deemed a compliance with the provisions of this section.

2. Putting Snow In The Street

2.a We have all faced the problem of driving on a plowed street only to run into a spot where someone has placed snow onto the street. This creates a safety hazard and the person placing the snow onto the street may be liable for any accidents that occur.

2.b **CITY CODE Sec. 130-581.** Duty of abutting property owner or occupant.

(c) It shall be unlawful for any person to push, plow or otherwise move, or allow the same to be done, snow and/or ice which has accumulated in a public or private parking area onto any public sidewalk, public or private street or handicapped stall.

It shall be unlawful to place snow and ice on any alley or street right-of-way from private sidewalks, driveways, parking lots, roofs or other private property.

3. Snow Plowed on Sidewalks and Driveways

3.a When cleaning your street, crews have no place to push the snow except to the curb. This creates the unavoidable problem of already cleaned sidewalks and driveways becoming re-covered with snow. Unfortunately, the City does not have the resources to clean everyone's

sidewalks and driveways. The Public Works Department asks your cooperation in removing the snow again. We all need to work together to keep our City safe and this includes our sidewalks.

4. Mailboxes/Fire Hydrants

4.a Curbside mailboxes and fire hydrants may become blocked. Since the City does not have the resources to remove snow from the mailboxes, the Public Works Department asks that you clear the snow from your mailbox to allow the Post Office to deliver your mail. The U.S. Post Office does not require all snow to be removed from the mailbox, but enough to allow the mail trucks to drive up to the mailbox for delivery. Attention to fire hydrants greatly assists the Fire Department in that most critical time of responding to a fire.

5. Residential Parking Ban

5.a Depending on conditions, the Public Works Department may re-plow residential streets in order to allow normal traffic flow and parking. In order to do this, residential parking may be banned on certain streets.

5.b When a residential parking ban is declared, the news media will be given the information to announce to the public. The ban will typically go into effect a few hours after the ban is announced. At that time the Public Works Department will move plows into the residential areas to plow those streets where no parking is allowed. Working with the Police Department and tow truck operators, any illegally parked vehicles will be removed. As these streets are completed, the ban will be switched to other streets and the snow removal operation will continue until complete.

5.c Public announcements will be made prior to the beginning of any parking ban, as the ban is lifted and moved to other streets and when the ban is no longer necessary.

6. Alleys

6.a The Public Works Department's top priority is to remove snow from major and residential streets to allow traffic flow in case of an emergency. Although alleys are not part of the City's snow removal plan, crews will try to clean alleys as needed and to facilitate garbage removal. Some alleys are too narrow for snowplows. The residents adjacent to these alleys are encouraged to clear the snow. Parked cars prevent alley plowing.

OPERATIONS GUIDE FOR MAINTENANCE FIELD PERSONNEL

INTRODUCTION

This appendix is a guide to highway anti-icing operations for maintenance field personnel. Its purpose is to suggest maintenance actions for *preventing* the formation or development of packed and bonded snow or bonded ice during a variety of winter weather events. It is intended to complement the decision-making and management practices of a systematic anti-icing program so that roads can be efficiently maintained in the best possible condition.

The guidance is based upon the results of four years of anti-icing field testing conducted by 15 State highway agencies and supported by the Strategic Highway Research Program (SHRP) and the Federal Highway Administration (FHWA). It has been augmented with practices developed outside the U.S., where necessary, for completeness. The recommendations are subject to refinement as U.S. highway agencies gain additional experience with anti-icing operations. Final decisions for their implementation rests with management personnel.

GUIDANCE FOR ANTI-ICING OPERATIONS

Guidance for anti-icing operations is presented in Tables 8 to 13 for six distinctive winter weather events. The six events are:

- Light Snow Storm
- Light Snow Storm with Period(s) of Moderate or Heavy Snow
- Moderate or Heavy Snow Storm
- Frost or Black Ice
- Freezing Rain Storm
- Sleet Storm

The tables suggest the appropriate maintenance action to take during an initial or subsequent (follow-up) anti-icing operation for a given precipitation or icing event. Each action is defined for a range of pavement temperatures and an associated temperature trend. For some events the operation is dependent not only on the pavement temperature and trend, but also upon the pavement surface or the traffic condition at the time of the action. Most of the maintenance actions involve the application of a chemical in either a dry solid, liquid, or prewetted solid form. Application rates ("spread rates") are given for each chemical form where appropriate. These are suggested values and should be adjusted, if necessary to achieve increased effectiveness or efficiency, for local conditions. *The rates given for liquid chemicals are the equivalent dry chemical rates.* Application rates in volumetric units such as L/lane-km (or gal/lane-mi) must be calculated from these dry chemical rates for each chemical and concentration.

Comments and notes are given in each table where appropriate to further guide the maintenance field personnel in their anti-icing operations.

C.3 GLOSSARY OF TERMS

Black ice. Popular term for a very thin coating of clear, bubble-free, homogeneous ice which forms on a pavement with a temperature at or slightly above 0°C (32°F) when the temperature of the air in contact with the ground is below the freezing-point of water and small slightly supercooled water droplets deposit on the surface and coalesce (flow together) before freezing.

Dry chemical spread rate. The chemical application rate. For solid applications it is simply the weight of the chemical applied per lane kilometer (or mile). For liquid applications it is the weight of the dry chemical in solution applied per lane kilometer (or mile).

Freezing rain. Supercooled droplets of liquid precipitation falling on a surface whose temperature is below or slightly above freezing, resulting in a hard, slick, generally thick coating of ice commonly called glaze or clear ice. Non-supercooled raindrops falling on a surface whose temperature is well below freezing will also result in glaze.

Frost. Also called hoarfrost. Ice crystals in the form of scales, needles, feathers or fans deposited on surfaces cooled by radiation or by other processes. The deposit may be composed of drops of dew frozen after deposition and of ice formed directly from water vapor at a temperature below 0°C (32°F) (sublimation).

Light snow. Snow falling at the rate of less than 12 mm (1/2 in) per hour; visibility is not affected adversely.

Liquid chemical. A chemical solution; the weight of the dry chemical in solution applied per lane kilometer (or mile) is the chemical application rate – the "dry chemical spread rate" – used in this appendix.

Moderate or heavy snow. Snow falling at a rate of 12 mm (1/2 in) per hour or greater; visibility may be reduced.

Sleet. A mixture of rain and of snow which has been partially melted by falling through an atmosphere with a temperature slightly above freezing.

Slush. Accumulation of snow which lies on an impervious base and is saturated with water in excess of its freely drained capacity. It will not support any weight when stepped or driven on but will "squish" until the base support is reached.

Table 1. Weather event: light snow storm.

PAVEMENT TEMPERATURE RANGE, AND TREND	INITIAL OPERATION				SUBSEQUENT OPERATIONS			COMMENTS
	pavement surface at time of initial operation	maintenance action	chemical spread rate, (gal/lb/lane-mi) e		maintenance action	chemical spread rate, (gal/lb/lane-mi)		
			Anti Icing	solid or prewetted solid		liquid	solid or prewetted solid	
Above 0°C (32°F), steady or rising	Dry, wet, slush, or light snow cover	None, see comments			None, see comments			1) Monitor pavement temperature closely for drops toward 0°C (32°F) and below 2) Treat icy patches if needed with chemical at 28 kg/lane-km (100 lb/lane-mi); plow if needed
Above 0°C (32°F), 0°C (32°F) or below is imminent;	Dry	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(100)	Plow as needed; reapply liquid or solid chemical when needed	(15-30) gal/lane mi	(100)	1) Applications will need to be more frequent at lower temperatures and higher snowfall rates 2) It is not advisable to apply a liquid chemical at the indicated spread rate when the pavement
ALSO -7 to 0°C (20 to 32°F), remaining in range	Wet, slush, or light snow cover	Apply liquid or solid chemical	(15-30) gal/lane mi)	(100)				temperature drops below -5°C (23°F) 3) Do not apply liquid chemical onto heavy snow accumulation or packed snow
-10 to -7°C (15 to 20°F), remaining in range	Dry, wet, slush, or light snow cover	Apply prewetted solid chemical	(15-30) gal/lane mi	(200)	Plow as needed; reapply prewetted solid chemical when needed		(200)	If sufficient moisture is present, solid chemical without prewetting can be applied
Below -10°C (15°F), steady or falling	Dry or light snow cover	Plow as needed	(15-30) gal/lane mi		Plow as needed			1) It is not recommended that chemicals be applied in this temperature range 2) Abrasives can be applied to enhance traction

CHEMICAL APPLICATIONS. (1) Time initial and subsequent chemical applications to *prevent* deteriorating conditions or development of packed and bonded snow. (2) Apply chemical ahead of traffic rush periods occurring during storm. **PLOWING.** If needed, *plow before chemical applications* so that excess snow, slush, or ice is removed and pavement is wet, slushy, or lightly snow covered when treated.

Table 2. Weather event: light snow storm with period(s) of moderate or heavy snow.

PAVEMENT TEMPERATURE RANGE, AND TREND	INITIAL OPERATION				SUBSEQUENT OPERATIONS				COMMENTS					
	pavement surface at time of initial operation	maintenance action	chemical spread rate, (gal/lb/lane-mi)		maintenance action	chemical spread rate, (gal/lb/lane-mi)								
			liquid	solid or prewetted		liquid	solid or prewetted solid	light snow		heavier snow	light snow	heavier snow		
				solid										
Above 0°C (32°F), steady or rising	Dry, wet, slush, or light snow cover	None, see comments			None, see comments									1) Monitor pavement temperature closely for drops toward 0°C (32°F) and below 2) Treat icy patches if needed with chemical at 28 kg/lane-km (100 lb/lane-mi); plow if needed
Above 0°C (32°F), 0°C (32°F) or below is imminent;	Dry	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(100)	Plow as needed; reapply liquid or solid	(15-30) gal/lane mi	(15-30) gal/lane mi	(100)	(200)					1) Applications will need to be more frequent at lower temperatures and higher snowfall rates 2) Do not apply liquid chemical onto
ALSO -4 to 0°C (25 to 32°F), remaining in range	Wet, slush, or light snow cover	Apply liquid or solid chemical	(15-30) gal/lane mi	(100)	chemical when needed									heavy snow accumulation or packed snow 3) After heavier snow periods and during light snow fall, reduce chemical rate to 28 kg/lane-km (100 lb/lane-mi); continue to plow and apply chemicals as needed
-10 to -4°C (15 to 25°F), remaining in range	Dry, wet, slush, or light snow cover	Apply prewetted solid chemical	(15-30) gal/lane mi	(200)	Plow as needed; reapply prewetted solid chemical when needed				(200)	(250)				1) If sufficient moisture is present, solid chemical without prewetting can be applied 2) Reduce chemical rate to 55 kg/lane-km (200 lb/lane-mi) after heavier snow periods and during light snow fall; continue to plow and apply chemicals as needed
Below -10°C (15°F), steady or falling	Dry or light snow cover	Plow as needed	(15-30) gal/lane mi		Plow as needed	(15-30) gal/lane mi	(15-30) gal/lane mi	200	250					1) It is not recommended that chemicals be applied in this temperature range 2) Abrasives can be applied for traction

CHEMICAL APPLICATIONS. (1) Time initial and subsequent chemical applications to *prevent* deteriorating conditions or development of packed and bonded snow. (2) Apply chemical ahead of traffic rush periods occurring during storm. **PLOWING.** If needed, *plow before chemical applications* so that excess snow, slush, or ice is removed and pavement is wet, slushy, or lightly snow covered when treated.

Table 3. Weather event: moderate or heavy snow storm.

PAVEMENT TEMPERATURE RANGE, AND TREND	INITIAL OPERATION				SUBSEQUENT OPERATIONS			COMMENTS
	pavement surface at time of initial operation	maintenance action	chemical rate, (gal/lb/lane-mi)		maintenance action	chemical spread, (gal/lb/lane-mi)		
			liquid	solid or prewetted solid		liquid	solid or prewetted solid	
Above 0°C (32°F), steady or rising	Dry, wet, slush, or light snow cover	None, see comments			None, see comments			1) Monitor pavement temperature closely for drops toward 0°C (32°F) and below 2) Treat icy patches if needed with chemical at 28 kg/lane-km (100 lb/lane-mi); plow if needed
Above 0°C (32°F), 0°C (32°F) or below is imminent;	Dry	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(100)	Plow accumulation and reapply liquid or solid	(15-30) gal/lane mi	(100)	1) If the desired plowing/treatment frequency cannot be maintained, the spread rate can be increased to 55 kg/lane-km (200 lb/lane-mi) to accommodate longer operational cycles
ALSO -1 to 0°C (30 to 32°F), remaining in range	Wet, slush, or light snow cover	Apply liquid or solid chemical		(100)	chemical as needed			2) Do not apply liquid chemical onto heavy snow accumulation or packed snow
-4 to -1°C (25 to 30°F), remaining in range	Dry	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(150-200)	Plow accumulation and reapply	(15-30) gal/lane mi	(200)	1) If the desired plowing/treatment frequency cannot be maintained, the spread rate can be increased to 110 kg/lane-km (400 lb/lane-mi) to accommodate longer operational cycles 2) Do not apply liquid chemical onto heavy snow accumulation or packed snow
	Wet, slush, or light snow cover	Apply liquid or solid chemical		(150-200)	liquid or solid chemical as needed			
-10 to -4°C (15 to 25°F), remaining in range	Dry, wet, slush, or light snow cover	Apply prewetted solid chemical		(200)	Plow accumulation and reapply prewetted solid chemical as needed	(15-30) gal/lane mi	(250)	1) If the desired plowing/treatment frequency cannot be maintained, the spread rate can be increased to 140 kg/lane-km (500 lb/lane-mi) to accommodate longer operational cycles 2) If sufficient moisture is present, solid chemical without prewetting can be applied
Below -10°C (15°F), steady or falling	Dry or light snow cover	Plow as needed			Plow accumulation as needed			1) It is not recommended that chemicals be applied in this temperature range 2) Abrasives can be applied to enhance traction

CHEMICAL APPLICATIONS. (1) Time initial and subsequent chemical applications to *prevent* deteriorating conditions or development of packed and bonded snow -- *timing and frequency of subsequent applications will be determined primarily by plowing requirements.* (2) Apply chemical ahead of traffic rush periods occurring during storm.

PLOWING. *Plow before chemical applications* so that excess snow, slush, or ice is removed and pavement is wet, slushy, or lightly snow covered when treated

Table 4. Weather event: frost or black ice.

PAVEMENT TEMPERATURE RANGE, TREND, AND RELATION TO DEW POINT	TRAFFIC CONDITION	INITIAL OPERATION		SUBSEQUENT OPERATIONS			COMMENTS	
		maintenance action	chemical spread rate, (gal/lb/lane-mi)	maintenance action	chemical rate, (gal/lb/lane-mi)			
			liquid	solid or prewetted solid		liquid	solid or prewetted solid	
Above 0°C (32°F), steady or rising	Any level	None, see comments			None, see comments			Monitor pavement temperature closely; begin treatment if temperature starts to fall to 0°C (32°F) or below and is at or below dew point
-2 to 2°C (28 to 35°F), remaining in range or falling to 0°C	Traffic rate less than 100 vehicles per h	Apply prewetted solid chemical	(15-30) gal/lane mi	(25-65)	Reapply prewetted solid chemical as needed	(15-30) gal/lane mi	(25-65)	1) Monitor pavement closely; if pavement becomes wet or if thin ice forms, reapply chemical at higher indicated rate 2) Do not apply liquid chemical on ice so thick that the pavement can not be seen
(32°F) or below, and equal to or below dew point	Traffic rate greater than 100 vehicles per h	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(25-65)	Reapply liquid or prewetted solid chemical as needed	(40-115)	(25-65)	
-7 to -2°C (20 to 28°F), remaining in range, and equal to or below dew point	Any level	Apply liquid or prewetted solid chemical	(15-30) gal/lane mi	(65-130)	Reapply liquid or prewetted solid chemical when needed	(65-130)	(65-130)	1) Monitor pavement closely; if thin ice forms, reapply chemical at higher indicated rate 2) Applications will need to be more frequent at higher levels of condensation; if traffic volumes are not enough to disperse condensation, it may be necessary to increase frequency 3) It is not advisable to apply a liquid chemical at the indicated spread rate when the pavement temperature drops below -5°C (23°F)
-10 to -7°C (15 to 20°F), remaining in range, and equal to or below dew point	Any level	Apply prewetted solid chemical	(15-30) gal/lane mi	(130-200)	Reapply prewetted solid chemical when needed	(15-30) gal/lane mi	(130-200)	1) Monitor pavement closely; if thin ice forms, reapply chemical at higher indicated rate 2) Applications will need to be more frequent at higher levels of condensation; if traffic volumes are not enough to disperse condensation, it may be necessary to increase frequency
Below -10°C (15°F), steady or falling	Any level	Apply abrasives	(15-30) gal/lane mi	600-1000 lbs per lane mile	Apply abrasives as needed	(15-30) gal/lane mi	600-1000 lbs per lane mile	It is not recommended that chemicals be applied in this temperature range

TIMING. (1) Conduct initial operation in advance of freezing. Apply liquid chemical up to 3 h in advance. Use longer advance times in this range to effect drying when traffic volume is low. Apply prewetted solid 1 to 2 h in advance. (2) In the absence of precipitation, liquid chemical at (75 lb/lane-mi) has been successful in preventing bridge deck icing when placed up to 4 days before freezing on higher volume roads and 7 days before on lower volume roads.

Table 5. Weather event: freezing rain storm.

PAVEMENT TEMPERATURE RANGE, AND TREND	INITIAL OPERATION		SUBSEQUENT OPERATIONS		COMMENTS
	maintenance action	chemical spread rate, (gal/lb/lane-mi)	maintenance action	chemical spread rate, (gal/lb/lane-mi)	
Above 0°C (32°F), steady or rising	None, see comments		None, see comments		1) Monitor pavement temperature closely for drops toward 0°C (32°F) and below 2) Treat icy patches if needed with pretwettered solid chemical at 21-28 kg/lane-km (75-100 lb/lane-mi)
Above 0°C (32°F), 0°C (32°F) or below is imminent	Apply pretwettered solid chemical	(75-100)	Reapply pretwettered solid chemical as needed	(75-100)	Monitor pavement temperature and precipitation closely
-7 to 0°C (20 to 32°F), remaining in range	Apply pretwettered solid chemical	(75-250)	Reapply pretwettered solid chemical as needed	(75-250)	1) Monitor pavement temperature and precipitation closely 2) Increase spread rate toward <i>higher indicated rate</i> with decrease in pavement temperature or increase in intensity of freezing rainfall 3) Decrease spread rate toward <i>lower indicated rate</i> with increase in pavement temperature or decrease in intensity of freezing rainfall
-10 to -7°C (15 to 20°F), remaining in range	Apply pretwettered solid chemical	(250-400)	Reapply pretwettered solid chemical as needed	(250-400)	1) Monitor precipitation closely 2) Increase spread rate toward <i>higher indicated rate</i> with increase in intensity of freezing rainfall 3) Decrease spread rate toward <i>lower indicated rate</i> with decrease in intensity of freezing rainfall
Below -10°C (15°F), steady or falling	Apply abrasives	600-1000 lbs per lane mile	Apply abrasives as needed	600-1000 lbs per lane mile	It is not recommended that chemicals be applied in this temperature range

Notes

CHEMICAL APPLICATIONS. (1) Time initial and subsequent chemical applications to *prevent* glaze ice conditions. (2) Apply chemical ahead of traffic rush periods occurring during storm.

Table 6 Weather event: sleet storm.

PAVEMENT TEMPERATURE RANGE, AND TREND	INITIAL OPERATION		SUBSEQUENT OPERATIONS		COMMENTS
	maintenance action	chemical spread rate, (gal/lb/lane-mi)	maintenance action	chemical rate, (gal/lb/lane-mi)	
Above 0°C (32°F), steady or rising	None, see comments		None, see comments		1) Monitor pavement temperature closely for drops toward 0°C (32°F) and below 2) Treat icy patches if needed with prewetted solid chemical at 35 kg/lane-km (125 lb/lane-mi)
Above 0°C (32°F), 0°C (32°F) or below is imminent	Apply prewetted solid chemical	(15-30) gal/lane mi /	Plow as needed, reapply prewetted solid chemical when needed	600-1000	Monitor pavement temperature and precipitation closely
-2 to 0°C (28 to 32°F), remaining in range	Apply prewetted solid chemical	(15-30) gal/lane mi /	Plow as needed, reapply prewetted solid chemical when needed	600-1000	1) Monitor pavement temperature and precipitation closely 2) Increase spread rate toward <i>higher indicated rate</i> with increase in sleet intensity 3) Decrease spread rate toward <i>lower indicated rate</i> with decrease in sleet intensity
-10 to -2°C (15 to 28°F), remaining in range	Apply prewetted solid chemical	(15-30) gal/lane mi /	Plow as needed, reapply prewetted solid chemical when needed	600-1000	1) Monitor precipitation closely 2) Increase spread rate toward <i>higher indicated rate</i> with decrease in pavement temperature or increase in sleet intensity 3) Decrease spread rate toward <i>lower indicated rate</i> with increase in pavement temperature or decrease in sleet intensity
Below -10°C (15°F), steady or falling	Plow as needed	(15-30) gal/lane mi /	Plow as needed	(15-30) gal/lane mi	1) It is not recommended that chemicals be applied in this temperature range 2) Abrasives can be applied to enhance traction

Notes CHEMICAL APPLICATIONS. (1) Time initial and subsequent chemical applications to *prevent* the sleet from bonding to the pavement. (2) Apply chemical ahead of traffic rush periods occurin