a) Do not treat, especially if it is daylight as pavement temperatures are above freezing and the snow will melt without treatment.

iii. Sunlight

a) Significantly raises the temperature of the pavement.

1) Pavement and air temperatures can be dramatically different. During daylight hours, take advantage of the de-icing benefit the thermal energy of the sun provides.

b) Remember that all chemicals need time to work.

1) As a rule of thumb, give a minimum of twenty minutes before plowing an area that has been previously treated.

iv. Berms and shoulders

a) Generally not part of the traveled area and should not be treated.

1) An exception to this may be if there are drains located in the berm or shoulder area, but for the most part brine from the traveled area will run toward the drains, melting snow as it travels, especially after plowing back.

2) Check with a supervisor before treating these areas.

v. Ramps, intersections, bridge decks, underpasses and driving lanes

a) All require frequent attention.

1) Because of the stopping, starting, accelerating, decelerating and steering that occur on each, all are considered a priority.

b) Bridge decks need attention because air can pass over and under cooling the pavement temperature, causing them to freeze faster than the regular road surface.

c. Tips for spreading and plowing

i. Salt bridges first

a) Bridges freeze long before road surfaces because they do not hold warmth as a roadbed does, since cold air reached both the top and bottom surfaces of bridge decks.

b) They should receive early attention and an application of material.

c) Bridge decks may ice over even when there is no precipitation.

d) Anti-icing (pre-treating) has proven especially effective at preventing frost on bridges.

ii. Salt the high side of elevated curves

a) Once salt goes in to solution as brine, it will flow down and across a banked curve.

b) If salt is spread down the centerline of an elevated curve, everything above it will remain icy.

c) Spread salt on the high side of the curve and let gravity do the rest of the work.

iii. Leave no gaps

a) In some situations, operators must go beyond their assigned areas, if necessary, to plow or salt a gap that has not been treated for some reason.

b) A short, neglected stretch of roadway can be very hazardous to an unsuspecting motorist.

c) Take note of any such areas on your route and communicate with your supervisor for needed action and direction.

iv. Watch for drifting

a) In continued high winds, watch for drifting and slick spots, even after the pavement has been cleared.

b) Plow and treat icy buildups.

c) During some very low temperature storms with dry blowing snow, salt should not be used. The dry snow may blow off the pavement if no salt is used. If salt is used it can create problems by causing the snow to stick, melt and refreeze on the pavement surface.

v. Watch for slick spots

a) Occasionally, under certain weather conditions, a paper-thin sheet of ice forms in wheel paths on bare pavement even when pavement looks clear.

b) This light ice formation can be deadly.

c) Always watch for this condition and apply material immediately.

vi. Get equipment on the road

a) Once deployed, equipment needs to be on the road and to their assigned work locations as soon as possible.

b) Delay in getting to critical areas may cause severe traffic tie-ups.

vii. Note trouble spots

a) Intersections, ramps, hills and curves are also typical trouble spots in addition to bridges as mentioned earlier.

b) Early treatment of these areas is critical for maintaining traffic flow.

viii. Allow enough time for materials to work

a) Retreating does not clear roads faster, allow 20 minutes for salt to work.

ix. Questions or concerns

a) Always check with the supervisor for direction on activities.

x. Plowing techniques vary

a) There are a number of plowing techniques designed to address various issues associated with snow and ice removal from the highway:

These factors include:

1) multi-lane with and without medians,

2) two-lane roads,

3) intersections,

4) bridges,

5) ramps,

6) R/R tracks and

7) gore areas.

b) Learning the various techniques is important to efficient and effective removal.

1) Two lane roads

(a) Position left side of plow at centerline and angle plow to right, pushing snow to the right and trying to uncover the centerline on the first pass.

(b) When the centerline is not visible you may have to judge where the edge is and use it as your guide.

2) Multi-lane roads – The direction in which the snow is plowed will depend upon the median type.

(a) Wide median – In the right lane, snow is plowed to the right and in the left lane snow is plowed to the left.

(b) Narrow or no median – Snow must be plowed to the right.

3) Bridges – Various bridge types are also plowed using different techniques.

(a) Open design and not a roadway or R/R overpass – Plow similar to plowing a roadway pushing snow to the right.

(b) High barrier or overpass – Plow straight through and move snow to the end of the bridge.

(c) Bridge expansion joints – Make sure the plow is not parallel to expansion joints. The plow must be angled when plowing over such joints.

4) Ramps and elevated curves – Always plow moving snow from the high side to the low side.

5) Gore areas – Always plow in a manner to carry snow past the gore area. Never push snow into the gore area.

6) Railroad Tracks – Raise plow high enough to clear tracks when crossing a railroad track and turn off spreader to avoid a build up of materials on tracks.