



Highway Maintenance Manual

Bureau of Highway Maintenance

Chapter 06 Winter Maintenance

October 2002

Section 20 Snow Removal Materials

Subject 85 Salt Sheds, Brine Makers, and De-icing Agent Systems

1.0 Salt Sheds, Brine Making Equipment, Liquid De-icing Storage Tanks

County Salt Sheds that are used to store state salt shall be maintained in accordance with Trans 277, Highway Salt Storage Requirements. Sheds constructed with state funding will be covered by a maintenance agreement that sets forth maintenance, use, and compensation requirements.

Brine Making Equipment The department made available funding for the purchase of salt brine making equipment for sodium chloride on board prewetting systems. One of the cautions to be observed is that when making the solution, the initial solution is 28%; this must be diluted to a 23.1% solution to prevent re-crystallization of the solution at colder temperatures. The crystals that form can cause equipment malfunction and the lines will have to be flushed of the crystals. To dilute the solution to 23.1%, water is added and hydrometers are used to show when the solution reaches that point.

Liquid De-icing Storage Tanks Calcium Chloride, Magnesium Chloride, agricultural based products are liquid solutions that are optional method of prewetting salt. Tanks and pumps to handle this solution have been provided as an option as part of the 1994/1995 and 2000/2001 winter equipment initiatives.