

NEWS RELEASE

STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION

Carol A. Murray, Commissioner

For Immediate Release

January 7, 2005

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SALT BRINE ANTI-ICING TREATMENT BEGINS ON INTERSTATE 93
WILL RESULT IN 40% REDUCTION IN SALT USE ALONG MANCHESTER
TO SALEM CORRIDOR AND ALLOW PRE-TREATMENT OF THE HIGHWAY

A new anti-icing treatment that aims to reduce salt use while allowing for a more effective pre-treatment of highways before bad weather arrives is being introduced to a busy stretch of Interstate 93 in southern New Hampshire. Beginning the week of January 10, 2005, the New Hampshire Department of Transportation will begin using salt brine on 18 miles of I-93 between Salem and Manchester and sections of NH Route 101 in the Manchester area.

Salt brine is a liquid solution of water and approximately 2.2 pounds of dissolved salt per gallon. It's estimated that up to 60 gallons of salt brine will be required per lane mile for anti-icing treatment instead of the normal 250 pounds of dry rock salt currently used. This will save over 100 pounds of salt, or about 40%. The estimated cost to produce a gallon of salt brine is just five cents, compared, for example, to approximately 88 cents a gallon for the anti-icing alternative calcium chloride.

Another appeal of salt brine is that it can be used to pre-treat roads before a storm when it can adhere to the road surface, instead of bouncing off like rock salt, and prevent slippery winter conditions. NHDOT Operations Director Lyle "Butch" Knowlton says salt brine will potentially improve the safety conditions for motorists because the trucks will be out ahead of the storm instead of waiting for it to arrive. Salt in its granular form must create brine by absorbing moisture from the snow or rain before it can start to work. Salt brine reduces the reaction time because it's already in liquid form, and is more evenly distributed.

"It takes six times as much salt to attack snow pack or ice on the roads from the top down as it does from the bottom up," says the NHDOT's Steve Gray who is overseeing the salt brine project. Gray adds that salt brine has the residual effect of providing ongoing anti-icing effectiveness by staying on the pavement for several days.

The \$480,000 salt brine project includes a new building, pumps and mixing tanks at the NHDOT's Londonderry patrol facility off of I-93. The four new plow trucks will be equipped with 3,000-gallon brine tanks, a reversible front plow, and an underbody plow, and along with two similarly equipped trailers, will be used to dispense the salt brine. The equipment will be calibrated to ensure that the proper amount of salt brine will be sprayed at speeds of 30 to 35 miles per hour. Motorists will need to avoid following too close to the salt brine trucks.

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