
ENVIRONMENTAL Fact Sheet



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Snow and Ice Removal for the Business Owner Clean Water and Safe Parking Lots

New Snow and Ice Liability Protection in New Hampshire

Under a new law, RSA 489-C, *Salt Applicator Certification Option* (effective November 1, 2013), any business owner who contracts for snowplowing and deicing with a “certified” salt applicator, has liability protection from damages arising from hazards caused solely by snow or ice. The “certified” applicator is a snow removal contractor (contractor) who has undertaken specialized training through the University of New Hampshire "Green SnowPro Program" in the “how to’s” of efficient application of road salt (sodium chloride). In addition to providing limited liability protection, hiring a Green SnowPro certified contractor will:

- Increase the efficiency of removing snow and ice while ultimately decreasing the amount of road salt that is applied to the parking areas that they care for.
- Potentially save the business owner money through reduced salt use.
- Reduce impacts to the surrounding environment by protecting our ground water and nearby streams, ponds and lakes from potential chloride contamination from runoff that often originates from parking lot areas.
- Minimize the salt and sand that is often tracked into the lobbies and offices at one’s facility.
- Protect the landscape plantings (the trees, shrubs, and grass) and soil that often surround a parking area.

As many business owners have already learned, the level of service (how effectively a parking area can be managed for customer satisfaction) and customer safety, *are actually increased* substantially by more efficient salt use and not compromised as once traditionally thought. In our more urban areas, up to 50 percent of the chloride polluting local waterbodies originates from commercial parking lots. Business owners can minimize their cumulative impact on the environment by engaging certified salt applicators and implementing best management practices for salt reduction.

Encourage your current contractor to look into the Green SnowPro program at the University of New Hampshire: <http://t2unh.edu/green-snowpro-training-and-certification> or by calling Amy Begnoche, the Training Program Manager at (603) 862-2826.



Snow and Ice Removal Tips

The following additional tips may also improve the success of winter snow and ice removal activities:

- 1) As stated above, contract for snow removal with a “certified” Green SnowPro contractor. Provide your company with important liability protection and maximize the usefulness and safety of your parking area for your customers during the wintertime by hiring these specially trained individuals.
- 2) Before the snow season, review the existing building design and layout with your contractor to assist in facilitating “mechanical” snow removal, a preferred method of removing snow and ice (mechanical snow removal is the removal of snow with plow equipment or by hand shoveling without the use of any de-icer). Identify where snow will be piled, and high priority pedestrian and vehicle traffic expectations.
- 3) Encourage mechanical snow removal as early as possible at the onset of a storm. This helps to prevent snow and ice from adhering to the parking lot pavement initially and normally requires less salt application(s) during the full course of the storm.
- 4) If possible, consider not maintaining low use areas in the winter. SIMA, a national organization representing the snow and ice removal industry, has observed that in large parking lots, customers routinely park in small, confined areas at the entrances of the respective businesses. After the Holiday rush (where full parking capacity may be required), consider reducing the size of the parking area normally maintained, thus reducing overall plowing cost and application of road salt.
- 5) Ask important questions. For example, does your contractor calibrate his/her salt spreader each year – this alone can improve efficiency and reduce the amount of salt that is spread by 5 to 7 percent. Involvement by management will improve snow removal activities and should ultimately reduce overall cost.
- 6) Ask your contractor if they are using infrared thermometers to reduce potential salt applications. It’s all about temperature, temperature, temperature...studies show that parking lot pavement temperatures are usually warmer than air temperatures, particularly during the day. This means that there are many times when the pavement temperature will be above freezing even when air temperatures are well below freezing. Understanding this, a follow-up application of salt may not be necessary. At the opposite end, an application of road salt (sodium chloride) is generally not effective under 15 degrees Fahrenheit. It may be better during these periods to apply an abrasive like sand and wait to reapply road salt when the temperature rises again.
- 7) Direct your contractor to plow snow to the low side of the paved parking area. This will help to concentrate the snow piles away from customer service areas and may help to prevent slippage by customers on ice caused by the daily melting of snow piles.
- 8) Cover any sand and sand/salt mixtures stored within a parking area for treatment purposes to prevent salt from being washed or blown from the pile (studies have shown where 50 percent of this pile can be carried away).
- 9) Where possible, direct your contractor to use *drop-type* rather than *broad-cast* spreaders on sidewalks to increase the amount of material retained on the sidewalks to work. This will also help to limit salt damage to vegetated areas adjacent the sidewalks.
- 10) Encourage your contractor to use *anti-icing* measures before the storm. A concentrated liquid *anti-icing* product (brine) applied before the start of a snow storm has the advantage of preventing snow and ice from bonding to the pavement and accelerates the melting process. This practice can reduce slippery conditions more quickly to begin with, ultimately significantly decreasing the amount of sodium chloride that is applied to parking areas.

- 11) Encourage your contractor to use *pre-wetting* measures (where brine is used to wet sodium chloride) which increase the efficiency and speed at which the salt melts the ice. *Pre-wetting* through the use of saddle tanks mounted next to the salt hopper on the truck or by pre-wetting a pile of sodium chloride beforehand should also be considered as a worthy alternative and can provide another means of reducing the total application of salt. Both *anti-icing* and *pre-wetting* measures, when compared to other salt reducing efforts, are generally more effective at reducing substantial tonnage of salt.

The success of any salt reduction program requires effective procedures, the introduction of new salt reducing equipment or measures, and specialized training. Success will require the acceptance of these approaches by the business owner, property manager or supervisor, and the contractor; and most importantly a willingness to work together. For more information, please contact Patrick Woodbrey at the NHDES Watershed Assistance Section: (603) 271-5329 or patrick.woodbrey@des.nh.gov or visit the NHDES NH Road Salt Reduction Initiative Website: <http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/index.htm>