

Winter Operations Recommendations

Deicing Methods and Dilemmas

During workshops on November 9 and 16, ten speakers discussed the benefits and disadvantages of various deicing methods. We list their names here to publicly acknowledge their contributions to these successful training activities.

- Eric Williams
 - Nonpoint Source Coordinator
 - NH Dept. of Environmental Services
- Frank Mitchell
 - Water Quality Educator
 - UNH Cooperative Extension
- Richard Mitchell
 - Sales Representative
 - AKZO Salt Company
- Paul Brown
 - Marketing Devel. Engineer
 - General Chemical Company
- Robert A. Hogan
 - State Maintenance Engineer
 - NH Department of Transportation
- Michael D. Metcalf
 - Senior Project Engineer
 - Dufresne-Henry, Inc.
- Ed Chasse
 - Public Works Operations Manager
 - City of Concord
- Earle M. Chesley
 - Dir. of Public Works and Engineering
 - City of Merrimack
- David Wadleigh
 - Road Agent
 - Town of Tilton
- Donald J. Morgado
 - Town Administrator
 - Town of Moultonborough

We have shown speakers' positions and affiliations to indicate the variety of perspectives represented by this group. Mike Metcalf provided a handout, which, in our view, summarized major points made by speakers. His list (with minor editing) is printed in the adjacent column.

Recommendations to Reduce Water Supply Contamination Potential

1. Map all public water supplies.
2. Map boundaries of public water supply watersheds.
3. Determine direction of groundwater and surface flow to water supply locations.
4. Map private water supply locations.
5. Collect information on private well construction -- dug, drilled, etc.
6. Identify and map potential sources of road salt contamination.
 - a. Roads requiring more deicing.
 - b. Salt storage piles, covered and uncovered.
 - c. Snow dumping locations.
 - d. Drains and culvert outlets.
7. Identify and map salt-sensitive locations.
8. Cover and relocate salt storage piles as necessary.
9. Establish policies which minimize use of sodium chloride (NaCl), especially where it might affect water supplies.
 - a. Salt use should never be a substitute for plowing.
 - b. Use calcium chloride (CaCl₂) and/or sand instead of or mixed with sand.
 - c. Apply snow plowing techniques to roads consistent with their usage; for example, lightly traveled roads need not be kept bare.
 - d. Calibrate salt spreaders at least annually, and require calibration of hired spreaders.
 - e. Establish a record-keeping system for salt use, especially in water supply or other sensitive areas.
 - f. Train drivers and, to the extent feasible, assign them to specific routes.

What to Eat on Snow Plowing Nights

As Road Business readers know all too well, public works and highway department crews often battle snow and sleet through many nights. Recent research into sleep deprivation has revealed some ways to lessen the effects of loss of sleep. One set of findings suggest what to eat before and during night-time work.

During nighttime hours, the body slows down. It does not want to digest a donut, a "Whopper with Cheese," a "Big Mac," nor most other fast foods. Greasy, heavy protein foods bring on sleep! Operators can still enjoy eating with well-balanced meals and snacks. Such meals are compatible with a slower, nighttime digestive system.

Main Meal Before Night Work.

- Light protein foods -- chicken, turkey, fish, cooked beans and peas.
- Low-fat foods only; no heavy fats such as fried foods or donuts.
- Vegetables, fruits, breads, pasta, and/or potatoes.
- Low-fat or skim milk instead of regular; cheeses and yogurt.

Meals During Breaks.

- Soup and salad.
- Soup and a light sandwich.
- Light protein foods and vegetables.

Snacks Before and During Work.

- Low-fat dairy products.
- Fruit, popcorn, cereal, plain cookies, and/or baked crackers

Coffee and tea contain caffeine, and smoking and chewing tobacco contain nicotine. These are initially stimulants, but soon become depressant; they make the heart beat slower. CUT BACK.

DO NOT CONSUME ALCOHOL BEFORE OR DURING SNOW PLOWING OPERATIONS.

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