

Maintenance Advisory

MA 2013-01
August 27, 2013

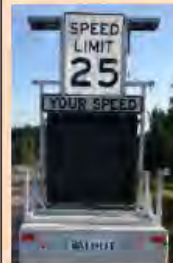
From Mark Geib, Engineer of Operations Field Services Division

MDOT
Operations Field
Services Division
6333 Lansing Road
Lansing, MI 48917

Questions regarding
this advisory should
be directed to:

Tim Croze
Engineer Manager
Region Support
Phone/517-322-3394
CrozeT@michigan.gov

Justin Droste
Roadway Operations
Engineer
Phone/517-636-0518
DrosteJ@michigan.gov



Best Practices for Applying Deicing Materials

Due to increasing costs and growing environmental concerns regarding the use of deicing materials for winter maintenance operations, it is critical we do everything possible to reduce the use of these materials, while still providing adequate levels of service. A major component of reducing the amount of deicing material required is conducting operations in ways that limit the amount of material that bounces and scatters off the roadway during application. The [2012 MDOT Salt Bounce and Scatter Study](#) concluded that using pre-wet salt and applying deicing materials at slower speeds significantly increases the amount of material that stays on the roadway. Incorporating these practices into MDOT's winter operations program will ensure that as much deicing material as possible remains on the roadway and within the target area (4' on either side of the centerline), where it is most effective.

In order to keep the most deicing material on the roadway during the application process, the following guidelines should be followed *(for all MDOT maintenance facilities beginning with the 2013/2014 season)*:

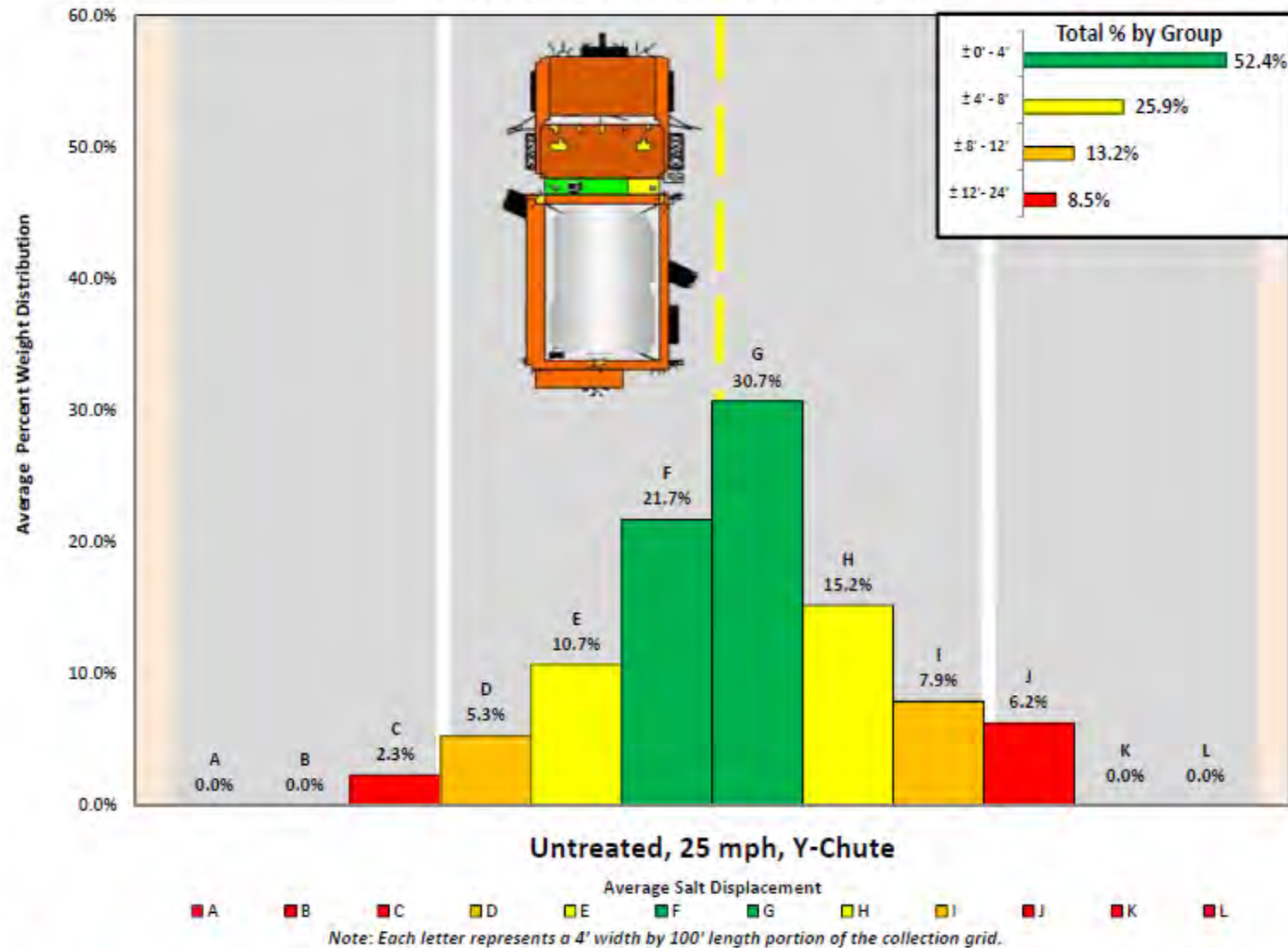
1. The truck's speed should operate between 20-25 mph while applying deicing material. Every effort should be made to maintain as slow a speed as possible while applying deicing material.

Justified exceptions to this practice may include:

- Peak hours on high-speed roads
- Trucks equipped with technology that limits salt scatter, such as zero-velocity spreaders, slurry generators, etc. Based on results from the [2013 MDOT Salt Bounce and Scatter Study](#), these advanced systems should not operate faster than 35 mph
- Other circumstances approved by the Region Engineer

2. All salt applied to a roadway should be pre-wet with a liquid chloride product. Rates of pre-wetting should be between 7 to 10 gallons per ton of untreated salt (salt slurry will require more, per manufacturer's recommendations). Salt can be treated at the stockpile, by the truckload, or at the point of application on the truck.

Bounce and Scatter Collection Graphs









MONROE DVS

DIESEL FUEL

DOT

04-3026

pre wet shute end 0 to 55 mph







