

LRRB
Local Operational Research Assistance Program (OPERA) for
Local Transportation Groups
Field Report

This report must include the underlined subject areas and supporting resources (i.e. photos, graphs, charts, etc.). The OPERA program will use this information in an annual report that will be shared with other local agencies within the state. We request that a short 5-10 minute demo or presentation be shared at the Spring Maintenance Training Expo, MN Fall Maintenance Expo or with a professional organization.

Date: June 1, 2011

Project Title: Implementation of a Scale Tec Calibration

Project Number:

Agency: Olmsted County Public Works Department

Person Completing Report: Michael Sheehan

Project Leader: Alan Ryg

Phone Number: 507-328-7070

Problem: During the winter months Olmsted County Public Works uses 17 tandem axle snow plow trucks to maintain 530 miles of roads. The County was unable to verify the amount of sand/salt mixture that was being applied to the road by each of the trucks. It was unclear if the amount of sand/salt we were applying was sufficient or if we were over-spreading this material.

Solution: The County solved this problem by using a Scale-Tec Calibrator IV to correctly calibrate the correct amount of sand/salt being spread by each truck. The device measures the spread of the material to an exacting level of 99.5%.

Procedure: We used this Scale-Tec Calibrator on each of our Force America 5100 spreaders. The 5100 spreader was set to scale mode, then placed under the spreader discharge. The dump body was raised, the auger filled, and then the spreader turned on to allow the sand/salt material to dump into the scale. Using the weight of the material, the correct calibration can then be used to set the appropriate settings on the spreader.

Results: With the Force America 5100 spreader with 9" auger, we found that most of our spreaders were adjusted correctly. Spreaders should be calibrated at least once a year before the start of the winter season or after any work has been done on the spreader. The correct calibration is important because it saves fuel, labor, and materials by avoiding a second trip on the same road when the first application was insufficient/underspread. We are now sure that our trucks are applying at an identical rate and not over or under spreading.

Implementation: The initial calibrations have been completed and future calibrations will occur as recommended.

Status: Complete

Total Duration of Project: 2 years

Project End Date: March 31, 2011

Approximate Cost of Entire Project: Since the calibration has been completed, over the past two winters we have saved money in the amount of salt used during the winter.

Total OPERA Funds used for project: \$3,000

Send and Email a completed report with pictures to: Mindy Carlson, CTS - 200 TSB, 511 Washington Ave. SE, Mpls. MN 55455, email carlson@umn.edu. For questions about this report please contact Mindy Carlson at 612-625-1813.