

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Effects of Additives in Deicing Salts at Lower Temperatures*

OBJECTIVES: The goal of this project is to evaluate the impact additives to solid rock salt have on the eutectic temperature of the product through laboratory testing. From this testing, determine if the additives lower the eutectic temperature of the product, and if so by how much. The end goal is to determine if the additives improve performance.

PERIOD COVERED: July 1 – September 30, 2023.

PARTICIPATING AGENCIES: Minnesota Department of Transportation, Clear Roads Pooled Fund, and the Western Transportation Institute at Montana State University.

PROJECT MANAGER:

Hafiz Munir / Tom Peters

SP&R PROJECT NO:

MnDOT Contract No.

1051718

PROJECT IS:

☐ Planning

☒ Research & Development

LEAD AGENCY: MnDOT

Federal Project Number:

TPF-5(479)

PRINCIPAL INVESTIGATOR:

Laura Fay, WTI, Montana State University

ANNUAL BUDGET: \$149,993

PROJECT EXPENDITURES TO DATE: \$45,180

WORK COMPLETED:

- Task 1 Kick off meeting was held March 22, 2023. Meeting slides and notes were submitted April 5, 2023.
- Task 2 Literature Review was submitted August 14, 2023. A meeting was held to review the document August 31, 2023. The meeting minutes and slide deck were submitted September 5, 2023.
- Task 3 draft Survey questionnaire was submitted August 14, 2023, this was revised and resubmitted September 5, 2023. Additional comments were received and it was revised and finalized September 20, 2023. The survey did not require MSU IRB approval or exemption.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

- Task 3 Survey will be disseminated. The survey summary report will be developed.
- Work on the Task 4 Lab Testing Plan will begin.

STATUS AND COMPLETION DATE: Nothing to report at this time.