APPENDIX C EEC APPROVAL LETTER FOR BUFFER RAILCAR (POST-TEST ANALYSIS)



Nichole Fimple
Executive Director
Rules and Standards

August 30, 2021 File 209.240

Subject: AAR Standard S-2043 Approval of DOE Atlas Railcar Design Project Buffer Car Post Test Analysis (Single Car Test)

Patrick Schwab Nuclear Engineer U.S. Department of Energy, Office of Nuclear Energy 19901 Germantown Road Germantown, MD 20874

Dear Mr. Schwab:

The AAR Equipment Engineering Committee (EEC) has completed their review of the Post Test Analysis (of Single Car Test) of the DOE Atlas Railcar Design Project Buffer Car submitted in TTCI Report P-21-013, and of the expert review of the same report conducted by Objective Engineers, Inc. The EEC hereby approves the Post Test Analysis based on satisfactory modeling results that show the intent of the following sections of S-2043 have been met:

- 1. Paragraph 8.1 Refining the FEA Was not necessary.
- 2. Paragraph 8.2 New FEA Predictions Were not necessary.
- 3. Paragraph 8.3 Refining the Dynamic Model Model improved to better match test results.
- 4. Paragraph 8.4 New Dynamic Predictions New simulations conducted based on effect of changes made in the model.

The buffer car simulation results and models are considered by the EEC as satisfactory, and the revised dynamic models approved to use for project analysis going forward.

If you have any questions please contact Mr. Jon Hannafious of our Transportation Technology Center, Inc., subsidiary at (719) 584-0682.

Sincerely,

Nichole Fimple

Michel Timple

NF/jsh

cc: Equipment Engineering Committee

MaryClara Jones, TTCI