

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: March 31, 2025

Lead Agency (FHWA or State DOT): Indiana DOT

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> <u>TPF 5-436</u>		Transportation Pooled Fund Program - Report Period: ☒ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☐ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)	
Project Title: Development of Criteria to Assess the Effects of Pack-out Corrosion in Built-up Steel Members			
Name of Project Manager(s): Tommy E. Nantung	Phone Number: (765) 463-1521 ext. 248	E-Mail tnantung@indot.in.gov	
Lead Agency Project ID:	Other Project ID (i.e., contract #):	Project Start Date: 9/1/2019	
Original Project End Date: 8/31/2022	Current Project End Date: 8/31/2025	Number of Extensions: None	

Project schedule status:

☐ On schedule
 ☒ On revised schedule
 ☐ Ahead of schedule
 ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date**
\$680,000	\$627,753	97%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date*
\$21,290	3.1%	95%

*Based on revised project end date of 8/2024.

Project Description:

This study proposes to:

- 1) To develop AASHTO ready specifications for the evaluation of the effects of pack-out corrosion in built-up steel tension, compression, and flexural members.
- 2) Provide guidance on the need for repairs and corrosion rates that can be expected in various environments in order to assist owners in programming when repairs may need to be made.
- 3) Identify the most effective methods of repairs and provide suggesting verbiage that could be used when preparing special provisions for repairs.
- 4) Develop several case-study examples, including calculations that will be used for training users on the methodologies to be developed. It is anticipated that the research team will host a number of webinars or on-site training sessions to ensure technology transfer and implementation.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Results from the parametric studies on flexural and axial members are being analyzed in order to develop simplified “hand” methods to account for the effects of pack-out corrosion on the strength and fatigue performance of such members.
- Final equations and the approach for how to address the effects of pack-out corrosion in flexural members and tension members (flanges and truss members) are nearly completed.
- The approach on how to address the effects of pack-out corrosion on fatigue are nearly finalized.

Anticipated work next quarter:

- Continue to craft AASHTO-ready code and commentary for evaluation of members with pack-out corrosion for consideration by AASHTO COBS, S&E and S&M committees.

Significant Results:

1. None to date

Potential Implementation:

None to date