

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: Sept. 30, 2024

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.

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|--|--|--|---|
| Transportation Pooled Fund Program Project # (i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)) <u>TPF 5-436</u> | | Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> 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 | \$567,183 | 92% |

Quarterly Project Statistics:

| Total Project Expenses and Percentage This Quarter | Total Amount of Funds Expended This Quarter | Total Percentage of Time Used to Date* |
|--|---|--|
| \$16,865 | 2.4% | 93% |

*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.):

- FEA parametric studies are now nearly complete on flexural and axial members to evaluate the effect of pack-out corrosion on the strength and fatigue performance of such members.
- FEA parametric studies on focused on compression members is nearly complete.
- Results (compression, tension, and fatigue) are being synthesized into draft AASHTO ready code and commentary.

Anticipated work next quarter:

- Complete the finite element parametric studies
- 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