

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: Sept 30, 2019

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: <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: 8/31/2022 | 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** |
|------------------------|--------------------------------|--|
| \$760,000 | \$4,600 | 3% |

Quarterly Project Statistics:

| Total Project Expenses and Percentage This Quarter | Total Amount of Funds Expended This Quarter | Total Percentage of Time Used to Date |
|--|---|---------------------------------------|
| \$4,600 | 0.6% | 2.7% |

**This total budget is based on funds that are shown as “committed” on the TPF website.

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.):

- At present, only two of the states which have made commitments for funding have actually transferred funds to the project. Hence, progress has been limited. It is hoped that remaining states will be transferring funds in the near term so that work can begin at a higher level of effort.
- The literature review has been completed and confirmed there is no real guidance available for evaluating the effects of pack-out on the strength and fatigue/fracture performance of components in highway bridges.
- Preliminary finite element studies are underway to begin to evaluate the effects of pack out on the strength of compression members in trusses.

Anticipated work next quarter:

- Continue with the finite element studies and begin to tension members.
- Coordinate a project kick-off meeting in early 2020.
- Begin to develop the large-scale experimental program

Significant Results:

1. None to date

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the Agreement, along with recommended solutions to those problems).

Potential Implementation:

None to date