Quarterly Report – Public Page

Date of Report: 2Q 2024 – June 30, 2024
Contract Number: 693JK310011POTA
Prepared for: DOT
Project Title: Investigate Damage Mechanisms for Hydrogen and Hydrogen/Natural Gas Blends to Determine Inspection Intervals for In-Line Inspection Tools
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For quarterly period ending: June 30, 2024

1: Items Completed During this Quarterly Period:

- Conducted Quarterly TAP meeting with Project Team and TAP members 15 May 2024.
- Started review of ASME B31.8S and other papers, Codes and Standards relevant to Table 3 to compare and contrast what requirements and methodologies are used globally for risk assessment.
- Compiled comparison of ASME B31.8S Table 2 (pipeline threats) with NACE SP0102 Table 1 (ILI anomalies), API 1176 Chapter 6 (cracking threat mechanisms), PCRI Pipeline Repair Manual 2021 (repair methods), and various threat assessment methods.
- Started review of 49 CFR 192, ASME B31.8S, ASME B31.12, and other papers, Codes, and Standards, to compare and contrast what requirements and methodologies are used globally and how those may be helpful to revise the stated documents.
- Communicated with members of PRCI about that organization's efforts, and how we can mutually share findings and project team to get access to relevant PRCI reports.
- Started review of existing methods to calculate inspection intervals and prepared example calculations to show proof-of-concept of calculations in the case of hydrogen pipelines.
- Communicated with LexTech company about fatigue modeling software called AFGROW. Followed up with a large pipeline operator (which also has a member on our TAP) that is using that software. They agreed to share information on their research, two data files with the pressure history of two gas pipelines, and help to determine relevant parameters for the inspection interval modeling.
- Submitted April and May Monthly Reports
- Completed and Issued 2Q Report 2024
- Issued 2Q 2024 Invoice

2: Items Not-Completed During this Quarterly Period:

- No incomplete items. The project is on schedule.

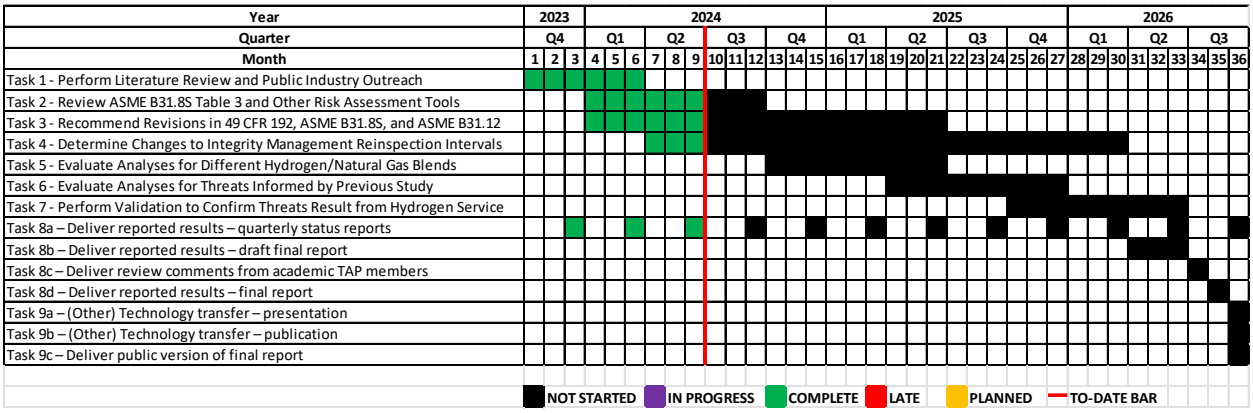
3: Project Financial Tracking During this Quarterly Period:

- Reference Internal 2Q 2024 Report.

4: Project Technical Status:

- Work is ongoing on Tasks 2, 3, 4, and 8.

5: Project Schedule:


Year
2023
2024
2025
2026
Quarter
Q4
Q1
Q2
Q3
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Month
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Task 1 - Perform Literature Review and Public Industry Outreach
Task 2 - Review ASME B31.8S Table 3 and Other Risk Assessment Tools
Task 3 - Recommend Revisions in 49 CFR 192, ASME B31.8S, and ASME B31.12
Task 4 - Determine Changes to Integrity Management Reinspection Intervals
Task 5 - Evaluate Analyses for Different Hydrogen/Natural Gas Blends
Task 6 - Evaluate Analyses for Threats Informed by Previous Study
Task 7 - Perform Validation to Confirm Threats Result from Hydrogen Service
Task 8a – Deliver reported results – quarterly status reports
Task 8b – Deliver reported results – draft final report
Task 8c – Deliver review comments from academic TAP members
Task 8d – Deliver reported results – final report
Task 9a – (Other) Technology transfer – presentation
Task 9b – (Other) Technology transfer – publication
Task 9c – Deliver public version of final report
NOT STARTED
IN PROGRESS
COMPLETE
LATE
PLANNED
TO-DATE BAR