

Quarterly Report – Public Page

Date of Report: 4Q 2024 – December 31, 2025
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: December 31, 2024

1: Items Completed During this Quarterly Period:

- Conducted Quarterly TAP meeting with the Project Team and TAP members on 6 November 2024.
- Continued 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.
- Attended biweekly meetings of ASME B31.8 Task Group on Hydrogen as a visitor (online).
- Continued review of existing methods to calculate inspection intervals for hydrogen pipelines.
- Continued curve fitting of Sandia fatigue data for pipeline steels in hydrogen, and used with AFGROW software.
- Received representative pressure cycling data for a gas pipeline from an operator.
- Received representative ILI data for modeling purposes from cost-sharing partner Novitech.
- Got accepted for paper and presentation at Pipeline Pigging and Integrity Management (PPIM) Conference, to be held January 27-31, 2025 in Houston, TX.
- Prepared and submitted PPIM Paper #140 Remaining Life Assessment of Hydrogen Pipelines for Flaw Sizes Below ILI and NDE Detection Limits (Lotfian, Brongers).
- Started evaluation of analyses for different hydrogen/natural gas blends.
- Started review of articles, papers, and books that were compiled in Task 1 (Literature Review) and are applicable to the topic of hydrogen gas blending, steel embrittlement, and integrity management.
- Submitted October and November Monthly Reports
- Completed and Issued 4Q Report 2024
- Issued 4Q 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 4Q 2024 Report.

4: Project Technical Status:

- This period, work is ongoing on Tasks 3, 4, and 8, and work was started on Task 5.

Year	2023															2024												2025												2026											
Quarter	Q4				Q1				Q2				Q3				Q4				Q1				Q2				Q3				Q4				Q1				Q2				Q3						
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
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