# **Quarterly Report – Public Page**

Date of Report:	3Q 2024 – September 30, 2024
<b>Contract Number:</b>	693JK310011POTA
Prepared for:	DOT
<b>Project Title:</b>	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: September 30, 2024

# 1: Items Completed During this Quarterly Period:

- Conducted Quarterly TAP meetings with the Project Team and TAP members on 14 August 2024.
- Completed review of ASME B31.8S-2004 Table 3 Integrity Assessment Intervals (renumbered to Table 5.6.1-1 in ASME B31.8S-2018 version).
- Completed review of ASME B31.8S Figure 7.2.1-1 Response Time.
- Completed descriptions of the terminology used for ambient-temperature hydrogen effects for pipelines.
- Completed review of ASME B31.8S-2018 Paragraph 2.2 Integrity Threat Classification.
- Prepared and submitted Task 2 Draft Report "Review of ASME B31.8S on Reinspection Intervals for Pipelines Carrying Hydrogen or Hydrogen/Natural Gas Blends."
- 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.
- Reviewed and commented on PRCI document "Consensus Engineering Requirements for Pipelines in Hydrogen and Blend Service.
- Attended biweekly meetings of ASME B31.8 Task Group on Hydrogen as a visitor (online).
- Attended ASME B31.8 Code Week meeting in Charlotte, NC: participated in ASME B31.8 and B31.8S committee meetings (in person).
- Continued review of existing methods to calculate inspection intervals for hydrogen pipelines.
- Purchased license to AFGROW software for fatigue modeling. This program allows for modeling during three stages: 1) crack initiation, 2) crack propagation, and 3) final fracture.
- Commenced curve fitting of Sandia fatigue data for pipeline steels in hydrogen, for use with AFGROW software.
- Participated in several calls with LexTech company about AFGROW fatigue modeling software.
- Continued efforts with pipeline operator to obtain representative pressure cycling data for a gas pipeline.
- Continued communication with cost-sharing partner Novitech to obtain representative ILI data for modeling purposes.
- Submitted July and August Monthly Reports
- Completed and Issued 3Q Report 2024
- Issued 3Q 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 3Q 2024 Report.

## 4: Project Technical Status:

• This period, work was completed on Task 2; moving forward, work is ongoing on Tasks 3, 4, and 8, and work will begin on Task 5.

## **5: Project Schedule:**

