

5th Quarterly Report (Public)

Date of Report: April 14, 2015

Contract Number: **DTPH5614H00004**

Prepared for: US DOT – PHMSA

Project Title: Improving Models to Consider Complex Loadings, Operations Considerations, and Interactive Threats

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For quarterly period ending: March 31, 2015

Objective: Some pipeline failures suggest that interactions of resident conditions with changing operations or environments may increase the probability of failure, reduce the failure stress, change the mode of failure from a leak to a rupture, cause development of a condition not detectable by assessment methods in use, or cause the shift of a condition from stable to unstable. The objective of this project is to develop guidance for pipeline operators in the form of advanced interaction matrices, decision processes,

Results and Conclusions:

Task II.A.3 has been finalized and its report has been submitted. The *Task II.A Interim Report* document is expected to be submitted by the end of April 2015. Task II.B.1 has been started; 17 decision trees for the archetype scenarios of interacting threats have been drafted.

Plans for Future Activity:

The proposed schedule for 2Q15 is as follows:

- Completion of Task II.B.1 – Develop the Decision Trees of the Case Histories.
- Initiation of Task II.B.2 – Develop Decision Data Needs.