

Quarterly Report – Public Page

Date of Report: December 29, 2015

Contract Number: DTPH56-15-T-00010

Prepared for: DOT

Project Title: Human Centric Approach to Improve Pipeline Non-Destructive Evaluation (NDE) Performance and Reliability

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For quarterly period ending: December 31, 2015

Non-destructive evaluation (NDE) is critical to the efficient and safe operation of pipelines. These inspections, however, are often riddled with unintentional human error, with proven, serious consequences in the form of lost lives and staggering property damage. The objective of this project is to pilot both technology and human solutions that will address this critical deficiency.

Battelle experts in human factor evaluations are leading the investigation, and are collaborating with partnering NDE vendors Mistras Group, Inc, JENTEK Sensors, Inc, and Applus RTD. Extensive interviews, protocol reviews, field observations, and control tests with field pipe defects will be conducted and systematically analyzed to identify and prioritize detrimental human shaping factors in the first 12 months. For the most effective analysis, Battelle experts will optimize the well-established Saba™ Peak Performance System accompanied by Human Performance Technology Front-end Analysis. In the following one to two years, solutions will be developed and piloted, with Phase 2 dedicated to human interventions and Phase 3 to technology interventions.

Results and Conclusions:

Literature review and study design are currently in process.

Plans for Future Activity:

A pilot study to validate methodology will be conducted in the second quarter of this effort. Results of the pilot study will be incorporated, and data collection will commence.