



Quarterly Report – PUBLIC Page

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Prepared for: United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety

Project Title: “Consolidated Research and Development Program to Assess the
Structural Significance of Pipeline Corrosion”

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Introduction

In 2002, PRCI issued a Guidance Document (Catalog No. L51958) describing methods for assessing the remaining strength of corroded transmission pipelines. The objective of Project 153M is to revise the Guidance Document by including the output from Project 153H (Corrosion Assessment Guidance for Higher Strength Pipelines); 153J (Remaining Strength of Corroded Pipe Under Secondary (Biaxial) Loading); 153K (Behavior of Corroded Pipelines Under Cyclic Pressure); and 153L (Assessment of Older Corroded Pipelines With Reduced Toughness and Ductility).

Summary of Progress – Project 153M

Draft reports describing the results have been issued to PRCI and DOT. Review comments have been received. This project is reliant on the schedule and progress of projects 153H&K phase I. Technical reports describing the results have been issued to PRCI and DOT.

Additional phase II work is under way and is to be completed before issue of the Guidance Document. Once this additional work has been completed, the Guidance Document will be modified to incorporate the output from 153H, J, K and L. Guidance to assess corrosion damage at seam and girth welds developed by Battelle on behalf of PRCI (Contract No. 8521) will also be included in the Guidance Document.

For Project 153K, testing has been completed and was terminated after acquiring data for:

- A total of 721, 281 pressure cycles, during which 3 defects failed
 - Defect 3 failed after enduring 454,776 cycles of an equivalent pressure range of 58bar
 - Defect 4 after 249,990 cycles of an equivalent pressure range of 128bar
 - Defect 2 after 67,985 cycles of an equivalent pressure range of 192bar
- One defect had not failed at the time of test termination:
 - Defect 1 had endured 35,955 cycles of an equivalent pressure range of 242bar without failure.

The test report is being finalized and the open literature is being reviewed to identify additional work undertaken that will support this work.

Plans for Future Activity

Plans for future activity include the completion of the additional work tasks agreed with PRCI and issue final reports for 153H and K. Thereafter, drafting of the Guidance Document will commence.