

11th Quarterly Report – Public Page

Date of Report: *January 31, 2011*

Contract Number: *DTPH56-08-T-000003*

Prepared for: *DOT and Co-funders (PRCI and CenterPoint Energy)*

Project Title: *Development of Tools to Estimate Actual Corrosion Growth Rates (Internal and External) of Gas Pipelines*

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Public Page Section:

Model computations and summary of the model results were made. A paper was prepared and scheduled to be presented at the NACE Conference to be held in March in Houston. The effect of coating permeability on the corrosion conditions in the coating disbonded region is described in the paper.

Results and Conclusions:

With a permeable coating, the transport of solution species through the coating can interact with the transport from the holiday. Relative to an impermeable coating, the immediate protective effect of CP due to the permeability of a coating is more significant. But, over time, as the condition in the coating-disbonded region approaches steady state, the driving force of CP applied at the holiday becomes less effective due to leaking out of the CP current through the coating.

Plans for Future Activity:

Prepare the draft final report while continuing summarizing the model results. Attend and present the NACE/2011 Annual Meeting in Houston in March.