Enhancing Direct Assessment with Remote Inspection through Coatings and Buried Regions DTPH56-06-T-000009

PHMSA ACCOMPLISHMENTS

Pipeline and Hazardous Materials Safety Administration

Pipeline Safety Research and Development

Technology Development for Improved Corrosion Mitigation

Project Abstract

The project aimed to extend Electromagnetic Acoustic Transducer technology to address two areas of direct assessment and inspection of installed pipelines. One area is the full body inspection of tar coated pipelines for corrosion damage with a minimum of excavation. The other is the measurement of residual stress and plastic strain in pipelines that have been bent or otherwise displaced by movement of the surrounding earth or instability in the soil under pipe supports. Particular emphasis will be placed on non-piggable lines and the use of instrumentation that is suitable for field operation by inspection service providers.

PHMSA Funding: $222,170

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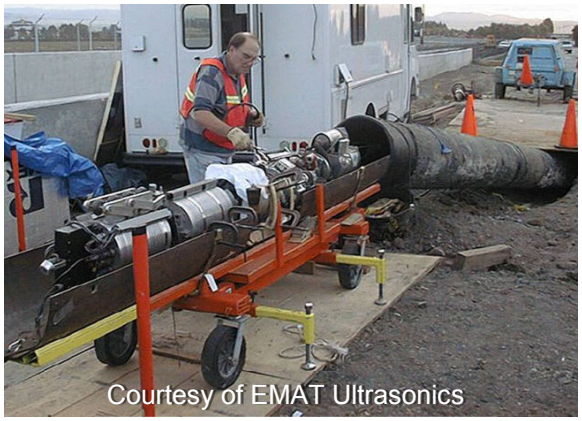
NET Improvement

This NDT technology can inspect above ground piping coated with less than 3mm thick. Eliminating the need to strip the thin corrosion barrier coatings such as Polyken, Fusion Bonded Epoxy, Tapecoat, Mastic, etc. This technique continues to expand the miles of pipelines inspected by improving the economy of inspection. The second facet of project is a new technique capable of inspecting thick Coatings greater than 20mm.

US Patent under DOT Contract:
N/A

Commercial Partner

EMAT Ultrasonics
http://www.sonicsensors.com/
Spectrum Sales and Services, LLC.
http://www.spectrum-na.com/
Structural Integrity Associates Inc.
http://www.structint.com/


Courtesy of EMAT Ultrasonics