



# NoPig Metal-Loss Detection System for Non-Piggable Pipelines

DTRS56-03-T-0006

## PHMSA ACCOMPLISHMENTS

**Pipeline and Hazardous Materials Safety Administration**

**Pipeline Safety Research and Development**

**Technology Development for Improved Corrosion Mitigation**

### Project Abstract

The NoPig Pipeline Inspection System has been developed for detecting metal loss anomalies on small diameter non-piggable pipelines from above ground. Contact points at two places no farther than 500 meters from each other are needed. The technology makes use of the skin effect. It utilizes a difference between magnetic fields at low and high frequency produced by electric currents passed through the pipe under test. The instrument and software development and improved practice in applications of the system will lead to improved detection capabilities for scheduled response defects.

**PHMSA Funding:** \$ 387,818

**Public Project Page**  
[Click here](#)

### NET Improvement

The sponsored research resulted in the NoPig inspection technique. The NoPig technique realizes a non-destructive testing method for unpiggable pipelines which uses above ground measurements for detecting wall thickness anomalies like corrosion. The method uses an applied current between two points on a pipeline up to 1 km apart.

**US Patent under DOT Contract:**  
N/A

### Commercial Partner

**N. Inspection Services GmbH**  
<http://npinspect.com/>

### **Contact**

**James Merritt**  
[james.merritt@dot.gov](mailto:james.merritt@dot.gov)



Courtesy N. Inspection Services GmbH