PHMSA REGULATION:
NONDESTRUCTIVE METHOD FOR MECHANICAL PROPERTY EVALUATION

According to the PHMSA final rule, section 192.607 states that if an operator does not have traceable, verifiable, and complete (TVC) records required by paragraph (b) of this section, the operator must develop and implement procedures for conducting nondestructive or destructive tests.

The final rule also requires that operators to reconfirm and document MAOP for certain onshore steel gas transmission pipelines located in high-consequence area or moderate-consequence area specified in section 192.624.

Frontics’ AIS (Advanced Indentation System) series based on the Instrumented Indentation Technology (IIT) meets the requirements under the New PHMSA DOT Regulation: 49 CFR 192.607. AIS series can help operators to facilitate the use of non-destructive surface testing: micro indentation as accurate, efficient, and cost-effective tools for material properties confirmation.

**PHMSA 192.607 Testing Requirements:**
**Minimum of 5 places in 2 circumferential quadrants**
It only requires ONE installation for one quadrant test. From the test preparation to test analysis, 2 quadrant tests will only take less than an hour.

**PHMSA 192.607:**
**Must achieve at least 95% confidence level**
3rd party application cases proves that IIT meets this confidence requirement
- Ultimate Yield Strength (UYS) ± 10% with a 95% Confidence Level
- Ultimate Tensile Strength (UTS) ± 10% with a 95% Confidence Level

**Material cutout / sampling are NOT REQUIRED**
AIS equipment can be operated on in-service pipelines

**Material Properties and attributes**
AIS can be applied on the objects with various mechanical properties such as weld zone and unusual shapes (elbows and t-welds)