

# GAS PIPELINE INTEGRITY MANAGEMENT

## PROPOSED RULE - PERFORMANCE METRICS (PART L)

Three sets of metrics required:

1. 4 metrics from Section 9 of B31.8S
2. 9 sets of threat specific metrics from Appendix A of B31.8S
3. 4 metrics required [part h(3)(vii)B] when ECDA is utilized as an inspection method

# B31.8S Metrics

1. Number of miles of pipeline inspected versus program requirements.
2. Number of immediate repairs completed as a result of the IMP.
3. Number of scheduled repairs completed as a result of the IMP
4. Number of leaks, failures and incidents (classified by cause) (new Form 7100.1)

These must be reported in "real time".

# Threat Specific Metrics

## [Appendix A-B31.8S]

External  
Corrosion (EC)

No. of Hydro Test Failures caused  
by EC

No. of repairs from ILI inspection  
results

No. of repairs from DA inspections

No. of EC related leaks

Internal  
Corrosion (IC)

No. of Hydro Test failures caused  
by IC

No. of repairs from ILI inspection  
results

No. of repairs from DA inspections

No. of IC related leaks

Stress Corrosion  
Cracking (SCC)

No. of service leaks due to SCC

No. of repairs/replacements due to  
SCC

No. of hydro test failures due to  
SCC

Manufacturing  
(M)

No. of hydro test failures due to  
manufacturing defects

No. of leaks due to manufacturing  
defects

Construction &  
Fabrication (C&F)

No. of leaks due to construction &  
fabrication

No. of girth welds/couplings  
removed/replaced

No. of wrinkle bends inspected

No. of fabrication welds repaired /  
removed

Equipment (E)

No. of regulator valve failures

No. of relief valve failures

No. of gasket/o-ring failures

No. of leaks due to equipment failures

Third Party  
Damage (TPD)

No. of leaks caused by TPD

No. of leaks caused by previously  
damaged pipe

No. of leaks/failures caused by  
vandalism

No. of repairs as a result of TPD,  
prior to leak or failure



Incorrect  
Operations (IC)

No. of leaks or failures caused by IC

No. of audits reviews conducted

No. of findings per audit

No. of changes to procedures due to  
audits

Weather Related  
(WR)

No. of leaks/failures due to weather  
or outside force

Outside Force  
(OF)

No. of replacements or relocations  
due to weather or outside force

# ECDA Measures [refers to h(3)(vii)B]

1. The effectiveness of the overall process (e.g., the change in the calculated reassessment interval).
2. The extent and the severity of corrosion found.
3. The number of indications in each classification located on successive applications of ECDA.
4. The time from discovery of an indication categorized as immediate action or scheduled action to its excavation.

INGAA Pipeline Safety Committee has a Performance Metrics team working with OPS to refine metrics requirements.

Industry should collect metrics on the impact of the rule on the pipeline industry and its customers.