

## **HP REPLACEMENT PROGRAM EVALUATION CRITERIA**

Questar Gas utilizes many different tools, including Transmission Integrity Management Plan (TIMP) criteria, which became effective in 2002. On an ongoing basis, Questar Gas uses all available tools to continue to refine its replacement schedule. Questar Gas evaluates risk by considering threats to the pipeline integrity and the consequence of failure (Risk= Threat x Consequence).

### I. Evaluation of Threats.

The Company's integrity and corrosion engineers and subject matter experts (SMEs) have evaluated (and continue to evaluate) threat criteria. The current threat criteria include, but are not limited to:

#### a. *Construction.*

- i. Pre 1955—High Risk.
- ii. 1955-11/1970 – Medium Risk.
- iii. Post 11/1970 – Low Risk (49 CFR Part 192 went into effect in 1970)

#### b. *Manufacturing (Pipe).*

- i. Low Frequency Electric Resistance Weld (LF-ERW)—High Risk.
- ii. Electric Flash Weld (EFW) – High Risk.
- iii. Longitudinal Seam Weld Factor < 1.0—High Risk.
- iv. Pre 1960 – Medium Risk.
  1. Double Submerged Arc Weld (DSAW).
  2. Submerged Arc Weld (SAW).
- v. Post 1960 – Low Risk.
- vi. Reconditioned Pipe.
  3. Yes – High Risk.
  4. No – Low Risk.

#### c. *Pressure Test Records.*

- i. Not found – High Risk.

#### d. *Pipe/Equipment Condition (SME evaluation).*

### II. Evaluation of Consequence. Factors considered in evaluating the consequence of failure include but are not limited to:

- a. *High Consequence Areas.*
- b. *High Populations based on Census Data.*

- III. Scheduling Replacements. The Company uses the results of this analysis to create a plan to replace aging infrastructure. The priority of replacement is based, in large part, upon the risk/consequence evaluation described above. However, other factors will influence the order in which facilities are replaced. Those factors include:
- a. *Customer load growth/growth patterns.*
  - b. *Operating History (i.e. history of leaks).*
  - c. *Results of integrity assessments.*
  - d. *Regulatory compliance.*
  - e. *Permitting requirements.*
  - f. *Environmental requirements.*
  - g. *Local government requirements.*
  - h. *Efficiency considerations (i.e. coordinating with road reconstruction projects).*
  - i. *Real Property and Right-of-way acquisitions.*
  - j. *Other project-specific considerations.*