



Risk Assessment

The client was concerned about the integrity of 69 miles of pipeline in high consequence areas transporting dry natural gas. DNV was brought in to facilitate a subject matter expert (SME) risk assessment model. DNV delivered a risk ranking of segments allowing maintenance to be prioritized, optimizing expenditures based on risk assessment.

Critical issues

To determine areas of high risk and to provide a risk ranking.

The client owns and operates approximately 280 miles of pipelines transporting dry natural gas. The primary concern in the system is 69 miles of pipeline in high consequence areas (US DOT covered segments). DNV was brought in to facilitate a subject matter expert (SME) risk assessment model. The client provided information and operational experience regarding the integrity of the natural gas transmission system. It was then up to DNV to determine areas of high risk and to provide a risk ranking.

Solutions

The SMEs used specific knowledge of the system to rank segments based on factors known to contribute to threats, and also identified categories of consequences associated with each covered segment. The analytical hierarchy process (AHP) was later implemented to prioritize threats, their contributing factors, and consequences. The SME threat identification process identified 7 of 11 threats specified in ASME B31.8S and/or CFR Part 192 as threats critical to the integrity of the pipeline. The covered segments determined to be high risk segments accounted for more than half of the total covered segments. DNV compiled this information through interviews of staff, reviewing prior risk models, and reviewing other readily available information.

Value delivered

- A comprehensive risk assessment and prioritization of threats.
- Prioritization of maintenance schedule
- Optimized expenditures based on the risk assessment

Contact

Tara.Podnar@dnv.com

DNV serving the energy industry

energy@dnv.com
www.dnv.com/energy

MANAGING RISK

