

Managing Recordkeeping Gaps in Risk Assessments

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Data Gap Resolution Process

- Process Overview
 - Data Gathering/Gap Analysis
 - Records Review
 - Sensitivity Analysis
 - Evaluation of known Relevant Data
 - Development of Action Plans
 - Model Updates

Data Gathering/Gap Analysis

- Evaluate all data points for risk assessment
- Prioritize missing data points based upon critical risk factors
- As an example for determining Pipeline MOP critical risk factors include:
 - Pipe Grade
 - Diameter
 - Wall Thickness
 - Component Ratings
 - Pressure Testing History

Records Review

- Review all relevant data sources that are available
 - Subject Matter Expert (SME) Experience
 - Interviews with previous Operations and Maintenance Employees
 - Pipe Manufacturer

Sensitivity Analysis

- What is the impact of the missing data?
- New Operator vs. Legacy Operator
- Examples of Key Risk Factors
 - Pipe Specifications
 - Pressure Testing History
 - Location of Pipe (HCA vs. Non-HCA)
 - Operating History

Evaluation of Relevant Data

- Can known data be used to infer unknown data?
 - It depends on the critical nature of the risk factor in question?
 - Ex: Depth of Cover data may be used based upon the inference of known data in the area until validation is performed.

Develop Action Plan

- Populate Models with appropriate data or scores based upon analysis.
 - Enter worst case risk model score for risk factors where data gaps could not be resolved
- Implement Mitigation Measures until data is gathered (if necessary)
 - Pressure Reductions
- Develop plan to gather appropriate data to fill gaps.
 - Pipe Cutouts/Metallurgical Analysis
 - Surveys (DOC, ROW Conditions, CIS, etc.)
 - Pressure Testing/ILI
- Close data loop by populating model after plan execution.

Summary

- Certain worst case risk factor scores will remain based upon the sensitivity analysis.
- Mitigation measures employed may become permanent (operating pressure reduction).
- Operators strive to close data gaps to minimize the resulting conservatism and gain a more accurate assessment of risk that can be utilized for appropriate resource allocation.