

## Gas Distribution Integrity Management - Plan Implementation

<b>1. Plan Implementation - Implement Date (confirm)</b> <i>Was the plan written and implemented per the requirement of 192.1005 by 08/02/2011? (GDIM.QA.PLANIMPLEMENT.P) (confirm)</i>						
	Sat+	Sat	Concern	Unsat	NA	NC
192.1005		X				
<b>Notes</b> The plan was originally published on 7/28/2011.						

<b>2. Plan Implementation - Data Sources (confirm)</b> <i>Do the procedures identify or reference the appropriate sources used to determine certain characteristics (e.g., Design, Operating Conditions, Operating Environmental Factors) necessary to assess the threats and risks to the pipeline? (GDIM.RA.SOURCES.P) (confirm)</i>						
	Sat+	Sat	Concern	Unsat	NA	NC
192.1007(a)(1)		X				
<b>Notes</b> Section 5.3  The gas crew paperwork manual lets the field staff know that the data they collect is used for integrity management purposes. I reviewed the 2016 edition (Rev2)						

## Gas Distribution Integrity Management - Knowledge of the System

<b>1. System Knowledge - Information Considered (confirm)</b> <i>Do the procedures require the consideration of information gained from past design, operations, and maintenance (e.g. O&amp;M activities, field surveys, One-Call system information, excavation damage, etc.)? (GDIM.RA.INFORMATION.P) (confirm)</i>						
	Sat+	Sat	Concern	Unsat	NA	NC
192.1007(a)(2)		X				
<b>Notes</b> Section 5.5 and Appendix A (history) and Appendix F has the damage prevention metrics						

<b>2. System Knowledge - Gaps (confirm)</b> <i>Does the plan contain procedures to identify additional information that is needed to fill gaps due to missing, inaccurate, or incomplete records? (GDIM.RA.GAPS.P) (confirm)</i>						
	Sat+	Sat	Concern	Unsat	NA	NC
192.1007(a)(3)		X				
<b>Notes</b> Section 5.4 has the references and Table 5.4.1 on pg A-31-33.						

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Distribution Integrity Management Program (GDIM) Inspection Form

**3. System Knowledge - Information Needed (confirm)** *Do the procedures specify the means to collect the additional information needed to fill gaps due to missing, inaccurate, or incomplete records (e.g., O&M activities, field surveys, One-Call System, etc.)? (GDIM.RA.INFONEEDS.P) (confirm)*

192.1007(a)(3)	Sat+	Sat	Concern	Unsat	NA	NC
		X				

**Notes**

Section 5.5 addresses inaccurate records and has the process for map and data corrections.

6.3 has ongoing review of threats.

Section 10 has accelerated/additional actions to be taken.

There is a committee that meets every year to focus on gaps in data.

**4. System Knowledge - Information Needed (detail)** *Does the plan list the additional information needed to fill gaps due to missing, inaccurate, or incomplete records? (GDIM.RA.INFONEEDS.R) (detail)*

192.1007(a)(3)	Sat+	Sat	Concern	Unsat	NA	NC
		X				

**Notes**

This is in section 5.4 on pg. 21 of the 2016 DIMP guide.

**5. System Knowledge - New Pipe Data (confirm)** *Do the procedures require the capture and retention of data on any new pipeline installed? (GDIM.RA.NEWPIPEDATA.P) (confirm)*

192.1007(a)(5)	Sat+	Sat	Concern	Unsat	NA	NC
		X				

**Notes**

They keep it for a minimum of ten years. The standards manual has records retention for specific records.

**6. System Knowledge - New Pipe Data (detail)** *Does the data required for capture and retention include, at a minimum, the location where the new pipeline is installed and the material from which it is constructed? (GDIM.RA.NEWPIPEDATA.R) (detail)*

192.1007(a)(5)	Sat+	Sat	Concern	Unsat	NA	NC
		X				

**Notes**

They keep for a minimum of ten years. The standards manual has records retention for specific records

<b>7. System Knowledge - Implementation (detail)</b> <i>Do records demonstrate implementation of the element "Knowledge of the System"? (GDIM.RA.DEMOKNOWLEDGE.R) (detail)</i>						
192.1007(a)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  Appendix A has detail. DIMP supporting documentation was reviewed. Several pics taken at 0934 to document the historical documents used in researching specific system attributes.						

<b>8. System Knowledge - Understanding (detail)</b> <i>Has the operator demonstrated an adequate understanding of the system? (GDIM.RA.DEMOUNDERSTANDING.R) (detail)</i>						
192.1007(a)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  Their plan and ArcGIS data models are thoughtful, and there is a solid repeatable process for analyzing their system data.						

## Gas Distribution Integrity Management - Identify Threats

<b>1. Identify Threats - Threats Considered (confirm)</b> <i>In identifying threats, do the procedures include consideration of all of the required threat categories to each gas distribution pipeline? (GDIM.RA.THREATCATEGORIES.P) (confirm)</i>						
192.1007(b)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  The threat section is section 6 and Appendix B						

<b>2. Identify Threats - Information Considered (detail)</b> <i>Did the operator consider the information that was reasonably available to identify existing and potential threats? (GDIM.RA.INFOCONSIDERED.P) (detail)</i>						
192.1007(b)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  Section 6, 6.1, and 6.2.						

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Distribution Integrity Management Program (GDIM) Inspection Form

<b>3. Identify Threats - Information Considered (confirm)</b> <i>In identifying threats did the information considered include all of the required data and information sources? (GDIM.RA.INFOCONSIDERED.R) (confirm)</i>						
192.1007(b)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  They are identifying threats, for example cross bores in Spokane will help Avista scope the extent of the problem. Seismic and landslide data is being used as well, but to a lesser extent in Washington compared to Oregon and Idaho.						

<b>4. Identify Threats - Outside Sources (detail)</b> <i>Do the procedures consider, in addition to the operator's own information, data from external sources (e.g. trade associations, government agencies, or other system operators, etc.) to assist in identifying potential threats? (GDIM.RA.OUTSIDESOURCES.P) (detail)</i>						
192.1007(b)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  Appendix B and 6.2.1 has potential threat review documentation.						

<b>5. Identify Threats - Implementation (confirm)</b> <i>Do records demonstrate implementation of the element "Identify Threats"? (GDIM.RA.IMPLEMENTTH.R) (confirm)</i>						
192.1007(b)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  This is contained in the DIMP supporting documentation we reviewed. There is summary documentation.						

## Gas Distribution Integrity Management - Evaluate and Rank Risk

<b>1. Rank Risk - Methodology (confirm)</b> <i>Do the procedures contain the method(s) used to determine the relative importance of each threat and estimate and rank the risks posed? (GDIM.RA.RISKRANKING.P) (confirm)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  B-14 was Washington state metrics. Appendix C has risk factors and rating.						

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<b>2. Rank Risk - Threats Considered (detail)</b> <i>Do the procedures to evaluate and rank risk consider each applicable current and potential threat? (GDIM.RA.THREATSCONSIDERED.P) (detail)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  In the 2016 DIMP plan, this starts on pg 26, Section 7 and involves the use of SMEs and the scores obtained from their raster analysis of gridded data for the purposes of spatial and statistical analysis.						

<b>3. Rank Risk - Likelihood (detail)</b> <i>Do the procedures to evaluate and rank risk consider the likelihood of failure associated with each threat? (GDIM.RA.LIKELIHOOD.P) (detail)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  This is contained in Section C and in the likelihood and consequence factors						

<b>4. Rank Risk - Consequences (detail)</b> <i>Do the procedures to evaluate and rank risk consider the potential consequence of failure for all applicable threats? (GDIM.RA.CONSEQUENCE.P) (detail)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  This is contained on pg. 26 in the 2016 plan and the next page has the reference to consequences in the formula for risk ranking.						

<b>5. Rank Risk - System Subdivision (confirm)</b> <i>If subdivision of system occurs, does the plan subdivide the system into regions with similar characteristics and for which similar actions are likely to be effective in reducing risk? (GDIM.RA.SUBDIVIDE.R) (confirm)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  Section 7 in 7.3 addresses this.						

<b>6. Rank Risk - Results (detail)</b> <i>Are the results of the risk ranking supported by the risk evaluation model/method? (GDIM.RA.RESULTS.R) (detail)</i>						
192.1007(c)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>  This is contained in section 7.5 and 7.6.1. They review the whole plan annually.						

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Distribution Integrity Management Program (GDIM) Inspection Form

<b>7. Rank Risk - Validation (confirm)</b> <i>Did the operator validate the results generated by the risk evaluation model/method? (GDIM.RA.RESULTSVALIDATION.R) (confirm)</i>						
192.1007(c)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				
<b>Notes</b> This is on pg 32 for the 2016 plan. It also involves the use of SMEs to check for logical consistency from computed results as they apply to real world cases.						

<b>8. Rank Risk - Implementation (confirm)</b> <i>Do records demonstrate implementation of the element "Evaluate and Rank Risk"? (GDIM.RA.IMPLEMENRR.R) (confirm)</i>						
192.1007(c)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				
<b>Notes</b> The leak history summary by threat/system/ and state contains these records.						

## Gas Distribution Integrity Management - Preventive and Mitigative Actions

<b>1. Measures to Reduce Risk - Identification (confirm)</b> <i>Does the plan include procedures to identify when measures, beyond minimum code requirements specified outside of Part 192 Subpart P, are required to reduce risk? (GDIM.PM.IDENTIFYMEASURES.P) (confirm)</i>						
192.1007(d)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				
<b>Notes</b> Section 8 contains this. Appendix F is where that is monitored. Appendix E 8.2.1 table details above and beyond measures.						

<b>2. Measures to Reduce Risk - Identification (confirm)</b> <i>When measures, beyond minimum code requirements specified outside of Part 192 Subpart P, are required to reduce risk, does the plan identify the measures selected, how they will be implemented, and the risks they are addressing? (GDIM.PM.IDENTIFYMEASURES.R) (confirm)</i>						
192.1007(d)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				
<b>Notes</b> Asset management comes in and will perform studies.						

<b>3. Measures to Reduce Risk - Leak Management (confirm)</b> <i>Does the plan include an effective leak management program (unless all leaks are repaired when found)? (GDIM.PM.LEAKMANAGEMENT.P) (confirm)</i>						
192.1007(d)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				
<b>Notes</b> Leaks are repaired. About 85% of leaks are repaired within the year found. Table 8.1-2 and their Leak Survey Performance Measures spreadsheet contains these metrics. The baseline assessment will be reestablished to use 2015 as the new baseline.						

<b>4. Measures to Reduce Risk - Implementation (confirm)</b> <i>Do records demonstrate implementation of the measures, required by Part 192 Subpart P, to reduce risk? (GDIM.PM.IMPLEMENTPM.R) (confirm)</i>						
192.1007(d)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>						

## Gas Distribution Integrity Management - Measure Performance and Evaluate Effectiveness

<b>1. Measure Performance - Baseline (confirm)</b> <i>Does the plan contain procedures for how the operator established a baseline for each performance measure? (GDIM.QA.PERFMEASUREBASELINE.P) (confirm)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>						
Avista uses 5 year average to establish the baseline and reestablished its baseline in 2015.						

<b>2. Measure Performance - Baseline (confirm)</b> <i>Does the plan establish a baseline for each performance measure? (GDIM.QA.PERFMEASUREBASELINE.R) (confirm)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>						
Yes it has baselines for each measure in section 9.1						

<b>3. Measure Performance - Data Collection (confirm)</b> <i>Does the operator have procedures to collect the data for each performance measure? (GDIM.QA.PERFMEASUREDATA.P) (confirm)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>						
Data collection is in section 9.7 The data resides in multiple data stores. Some field personnel have computers and enter the data while sometimes it is entered once the as-built is completed.						

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Distribution Integrity Management Program (GDIM) Inspection Form

<b>4. Measure Performance - Monitoring (confirm)</b> <i>Do the procedures require the operator to monitor each performance measure? (GDIM.QA.PERFMEASUREMONITOR.P) (confirm)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b>						

<b>5. Measure Performance - Measure Effectiveness (detail)</b> <i>When measures are required to reduce risk, do the procedures provide how their effectiveness will be measured? (GDIM.QA.MEASUREEFFECTIVENESS.P) (detail)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> This is in section 10, specifically 10.2, and Appendix G. When the baseline is exceeded by 5%, there is a review performed and they may need to make an adjustment for the risk or failure.						

<b>6. Measure Performance - Implementation (confirm)</b> <i>Do records demonstrate implementation of the element "Measure Performance, Monitor Results, and Evaluate Effectiveness"? (GDIM.QA.IMPLEMENTEV.R) (confirm)</i>						
192.1007(e)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> We also reviewed the materials and natural forces manual showing metrics for additional data and the leakage history documentation again.						

## Gas Distribution Integrity Management - Periodic Evaluation

<b>1. Periodic Evaluation - Requirements (confirm)</b> <i>Do the procedures for periodic evaluation include all of the requirements of 192.1007(f)? (GDIM.CA.PERIODICEVAL.P) (confirm)</i>						
192.1007(f)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> Pg 47 of their manual in 10.2.1 has the time frame for periodic evaluation.						



<b>2. Periodic Evaluation - Implementation (confirm)</b> <i>Do records demonstrate implementation of the element "Periodic Evaluation and Improvement"? (GDIM.CA.PERIODICEVAL.R) (confirm)</i>						
192.1007(f)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> We looked at Avista's records and the history for changes to the plan.						

## Gas Distribution Integrity Management - Reporting

<b>1. Report Results - Performance Measures (detail)</b> <i>Does the plan contain or reference procedures for reporting, on an annual basis, the four measures listed in 192.1007(e)(1)(i) through (e)(1)(iv) to PHMSA as part of the annual report required by 191.11 and the State regulatory authority? (GDIM.RR.ANNUALREPORT.P) (detail)</i>						
192.1007(g)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> Pg 50 contains the timeframes for reporting.						

<b>2. Report Results - Submittal (confirm)</b> <i>Has the operator submitted the required reports? (GDIM.RR.SUBMITREPORTS.R) (confirm)</i>						
192.1007(g)	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> We reviewed annual report containing 2014 and 2015. Lex Vinsel during his recent audit.						

## Gas Distribution Integrity Management - Report Mechanical Fitting Failures

<b>1. Mechanical Fitting Failures - Information Collection (confirm)</b> <i>Are there procedures to collect information necessary to comply with the reporting requirements of 192.1009? (GDIM.RR.MECHANICALFITTING.P) (confirm)</i>						
192.1009	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> Appendix G discussed time periods and we reviewed the failure history for mechanical fittings.						

## Gas Distribution Integrity Management - Records Required to be Kept

<b>1. Records - Requirements (confirm)</b> <i>Are there procedures specifying which records demonstrating compliance with Subpart P will be maintained for at least 10 years?</i> (GDIM.QA.RECORDREQUIREMENTS.P) (confirm)						
192.1011	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> They have records and a procedure that states they will keep these records for ten years.						

<b>2. Records - IM Plans (confirm)</b> <i>Are there procedures specifying that copies of superseded integrity management plans will be maintained for at least 10 years?</i> (GDIM.QA.PLANRETENTION.P) (confirm)						
192.1011	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> This is in section 12.						

<b>3. Records - Implementation (confirm)</b> <i>Has the operator maintained the required records?</i> (GDIM.QA.RECORDREQUIREMENTS.R) (confirm)						
192.1011	Sat+	Sat	Concern	Unsat	NA	NC
		X				
<b>Notes</b> Yes I looked at the old plans that they retained.						

## DIMP – GDIM IA Program Information Form

Plan Implementation - Products Used			
No.	Rule	Text	Result (Fully, Partially, Not at all, NA, NC)
1	Information Only	Were commercially available product(s)/templates used in the development of the operator's written integrity management plan?	Partially (They used a modified version of the NGA/SGA DIM)
Considerations		<ol style="list-style-type: none"> <li>1. Document commercial product(s)/template's name if used, and extent of use (fully or partially).</li> <li>2. This informational question is intended to discern which, if any, commercially available products were used to write the plan. This question is not intended to include risk evaluation tools or models which are covered in GDIM.RA.RISKRANKING.P in the "Evaluate and Rank Risk" section.</li> <li>3. Operators who use commercial products must adapt the basic materials with operator specific information and procedures.</li> <li>4. Examples of commercial products that can be used to develop DIMP plans include, but are not limited to: SHRIMP - Simple Handy Risk Integrity Management Program; GPTC Guide Material Appendix G192-8 DIMP; MEA Distribution Integrity Management Plan Preparation Aid; NGA/SGA DIM Framework Document and User's Guide.</li> </ol>	
Comments		The Northeast Gas Association/Southern Gas Association had a framework for a written plan and Avista used a modified version of that.	

System Knowledge – Information Sources			
No.	Rule	Text	Result (Electronic, Paper, SME, All of the above, NA, NC)
2	Information Only	Do the written procedures indicate if the information was obtained from electronic records, paper records, or subject matter expert knowledge?	All of the above.
Considerations		<ol style="list-style-type: none"> <li>1. Document which types of records were used for particular information sets (electronic, paper, SME).</li> <li>2. The purpose of this question is to identify the sources of information that an Operator is using to understand the adequacy and relevancy of the information for making assumptions, decisions, etc. If the source of the data is questionable, the data becomes questionable.</li> <li>3. It is helpful if operators list the format and location of the document in the information source list.</li> <li>4. If data is stored in an electronic format, it may be readily usable for trending historic data. Operators should document the dataset which was used to develop knowledge of the system.</li> <li>5. While this question is for information only, the answer may guide the inspector to a need to investigate further responses to other questions regarding knowledge of the system, identifying threats, and evaluating and ranking risks. For example, this question can be used as an opportunity to examine the qualifications of Subject Matter Experts. Inadequate qualifications of SMEs can affect the quality of information generated by those experts for use in developing or implementing DIMP.</li> </ol>	
Comments			

Measures to Reduce Risk – Table		
No.	Rule	Text
3	192.1007(d)	Complete the table: Threat Addressed, Measure to Reduce Risk, and Performance Measure
Considerations		<ol style="list-style-type: none"> <li>1. The inspector should complete the following table describing measures to reduce risk that the operator has or is planning on implementing along with identifying the threat that the measure is addressing and the performance measure that will be used to evaluate the implemented measure's effectiveness. This data will be analyzed by NAPS and PHMSA to generate information available to stakeholders. The statements input into the table by the Inspector should be concise but convey enough information to be able to draw conclusions from it.</li> </ol>
Comments		

### Threat Addressed, Measure to Reduce Risk, and Performance Measure

For the top five highest ranked risks from the operator's risk ranking list the following:

- Primary threat category (corrosion, natural forces, excavation damage, other outside force damage, material or weld, equipment failure, incorrect operation, and other concerns)
- Threat subcategory (GPTC threat subcategories are acceptable. Try to be specific. Example, failing bonnet bolts of gate valve, manufacturer name, model #)
- Measure to reduce the risk (list the one measure the operator feels is most important to reducing the risk)
- Associated performance measure

Rank	Primary Threat Category*	Threat Subcategory, as appropriate	Measure to Reduce Risk (Accerated Actions)	Performance Measure
1.	Material	Material Aldyl A Pipe	Trend material failures Increase leak survey frequency on areas of high risk Revise material standards Implement or increase schedule of a replacement program that prioritizes the replacement schedule based on high risk areas/segments	Number of Hazardous Leaks Eliminated or Repaired, per §192.703(c), Categorized by Material
	Comments			

### Threat Addressed, Measure to Reduce Risk, and Performance Measure

For the top five highest ranked risks from the operator's risk ranking list the following:

- Primary threat category (corrosion, natural forces, excavation damage, other outside force damage, material or weld, equipment failure, incorrect operation, and other concerns)
- Threat subcategory (GPTC threat subcategories are acceptable. Try to be specific. Example, failing bonnet bolts of gate valve, manufacturer name, model #)
- Measure to reduce the risk (list the one measure the operator feels is most important to reducing the risk)
- Associated performance measure

Rank	Primary Threat Category*	Threat Subcategory, as appropriate	Measure to Reduce Risk (Accerated Actions)	Performance Measure
2.	Excavation	Insufficient Excavator Practices	Track dig-ins and identify problem excavators. Implement repeat offender policy with targeted education, targeted field inspections. Conduct pre-construction meeting or site-visits for excavation near critical or high risk facilities. Special patrols or job site visits for high-risk excavators or high-risk excavation practices. Conduct enhanced awareness education	Number of Excavation Damages, Locate Tickets and Ratio of Excavation Damages per 1000 Locate Tickets
	Comments			

### Threat Addressed, Measure to Reduce Risk, and Performance Measure

For the top five highest ranked risks from the operator's risk ranking list the following:

- Primary threat category (corrosion, natural forces, excavation damage, other outside force damage, material or weld, equipment failure, incorrect operation, and other concerns)
- Threat subcategory (GPTC threat subcategories are acceptable. Try to be specific. Example, failing bonnet bolts of gate valve, manufacturer name, model #)
- Measure to reduce the risk (list the one measure the operator feels is most important to reducing the risk)
- Associated performance measure

Rank	Primary Threat Category*	Threat Subcategory, as appropriate	Measure to Reduce Risk (Accerated Actions)	Performance Measure
3.	Corrosion	External Corrosion Galvanic/Stray Current	Increase Leak Survey Frequency on areas of highest risk Implement or increase schedule of a replacement, program that prioritizes the replacement schedule based on highest risk areas/segments Correct cathodic protection deficiencies Test for and resolve DC current interference in areas located near DC transit systems, foreign utilities under CP, etc. Replace sections of poorly coated pipe subject to stray current Install insulation joints, magnesium anodes, and/or drainage bonds	Number of Hazardous Leaks Eliminated or Repaired, per §192.703(c), Categorized by Material
	Comments			



### Threat Addressed, Measure to Reduce Risk, and Performance Measure

For the top five highest ranked risks from the operator's risk ranking list the following:

- Primary threat category (corrosion, natural forces, excavation damage, other outside force damage, material or weld, equipment failure, incorrect operation, and other concerns)
- Threat subcategory (GPTC threat subcategories are acceptable. Try to be specific. Example, failing bonnet bolts of gate valve, manufacturer name, model #)
- Measure to reduce the risk (list the one measure the operator feels is most important to reducing the risk)
- Associated performance measure

Rank	Primary Threat Category*	Threat Subcategory, as appropriate	Measure to Reduce Risk (Accerated Actions)	Performance Measure
4.	Material, Weld or Joint Failure	Weld/Joint Failure	Trend weld or other joint failures Replace or repair Revise construction procedures Improve training	Number of Hazardous Leaks Eliminated or Repaired, per §192.703(c), Categorized by Material
	Comments			
5.	Incorrect Operations	Improper Install	Track failures/leaks that results from operating errors in order to identify any trends. Perform root cause analysis of operating errors and take corrective action. Review training and qualification programs and procedures for adequacy and take corrective action Evaluate locations where inadequate practices may have been used Improve training Perform internal inspections	Number of Hazardous Leaks either Eliminated or Repaired, per §192.703(c), Categorized by Cause
	Comments			

\* Corrosion, Natural Forces, Excavation Damage, Other Outside Force Damage, Material or Weld, Equipment Failure, Incorrect Operation, Other Concerns

PHMSA Form 22 Question Set (IA Equivalent)  
Distribution Integrity Management Program (GDIM) Inspection Form

Rank Risk – Model			
No.	Rule	Text	Result (Fully, Partially, Not at all, NA, NC)
4	Information Only	Was the risk evaluation developed fully or in part using a commercially available tool?	Partially
Considerations		<ol style="list-style-type: none"> <li>1. Document commercially available tool's name, if used, and the extent of use (fully or partially).</li> <li>2. While this is an information-only question, it may guide the depth to which an inspector must investigate following questions. For example, use of SHRIMP has been determined to address successfully certain portions of the regulation.</li> <li>3. The operator may have used several methods or tools to evaluate risk. The procedure may have included use of commercially available tools, operator developed tools, and/or subject matter experts. For example, the operator may have used a commercial tool to develop their replacement program but used subject matter experts to evaluate risks with different measure to address risk. Select all applicable boxes which reflect their procedure.</li> <li>4. Examples of commercial products that can be used for risk evaluation include, but are not limited to: SHRIMP - Simple Handy Risk Integrity Management Program; GPTC Guide Material Appendix G192-8 DIMP; MEA Distribution Integrity Management Plan Preparation Aid; NGA/SGA DIM Framework Document and User's Guide; Optimain DS Software. Note that Operators may have used these products for portions of their DIMP plan even when the plan was nominally developed in-house.</li> <li>5. SHRIMP: The application contains a risk evaluation tool.</li> </ol>	
Comments		NGA/SGA DIM Framework Document and User's Guide utilized.	

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