

PHMSA Integrity Management Question Set (IA Equivalent)
GAS TRANSMISSION INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

Inspection Report			
Inspection ID/Docket number	5813		
Inspector Name & Submit Date	Scott Rukke September 9, 2014		
Chief Eng Name & Review Date	Joe Subsits, 9/9/2014		
Operator Information			
Name of Operator:	Northwest Natural Gas	OP ID #:	13840
Name of Unit(s):	NWN - Transmission (Camas)		
Records Location:	Portland Oregon, NWN HQ		
Date(s) of Last (unit) Inspection:	N/A	Inspection Date(s):	September 3-4, 2014

Inspection Summary:

This Integrity Management inspection consisted of a records review and a field inspection component. The Camas Transmission line was built in 1956 of 8.625 .188 WT Kaiser Grade B API5L pipe. It is assumed that it is low frequency ERW pipe. The system was pressure tested and designed under ASME B31.8. The system is 3.4 miles at it operates at or less than 26% SMYS.

There were no violations or issues.

HQ Address: 220 NW Second Avenue Portland, OR 97209		System/Unit Name & Address: Camas Transmission Line – P04	
Co. Official: Grant M. Yoshihara	Phone No.: 503-226-4211 ext 2374	Phone No.:	
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Emergency Phone No.: 503-226-4211 Ext 4613		Emergency Phone No.: Gas Control 503-226-4211 Ext 4613	
Persons Interviewed	Title	Phone No.	
Peter Cathart	Integrity Management Engineer	503-715-7441	
Andrea Kuehnell	Integrity Management Engineer	971-409-7594	
Kerry Champine	Manager Compliance	X-4340	
Ryan Van Gordon	Integrity Management Engineer	X-4333	
Rich Gorard	Integrity Management Engineer	360-921-0314	
Dakota Duncan	Compliance Specialist	503-226-4211 X-4389	
Samantha Burt	Compliance Specialist	503-226-4211 X-4366	
Andrea Scott	Compliance Specialist	503-226-4211 X-4534	
Ryan Truair	Manager System Integrity	X-4361	
Chris Wiles	Integrity Specialist	X-4360	

Assessment and Repair - Confirmatory Direct Assessment

4. CDA Plan (detail) *Is an adequate Confirmatory Direct Assessment Plan in place? (AR.CDA.CDAPLAN.P) (detail)*

192.931 (192.931(a); 192.931(b); 192.931(c); 192.931(d))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

5. External Corrosion Plan (detail) *From the review of the results of selected integrity assessments, was the external corrosion plan properly implemented? (AR.CDA.CDAEXTCORR.R) (detail)*

192.931(b)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

6. Internal Corrosion Plan (detail) *From the review of the results of selected integrity assessments, was the internal corrosion plan properly implemented? (AR.CDA.CDAINTCORR.R) (detail)*

192.931(c)	Sat+	Sat X	Concern	Unsat	NA	NC
<p>Notes: No internal corrosion has been found. Coupons have been examined and during segment replacement internal surfaces were examined.</p> <p>Internal Corrosion Direct Assessment (ICDA) – Uses flow modeling technology to find areas where water or other electrolytes can stand in the pipe.</p>						

7. Remediation of Indications (detail) *From the review of the results of selected integrity assessments, was the need to accelerate the next assessment evaluated? (AR.CDA.CDAINDICATION.R) (detail)*

192.931(d)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: No internal corrosion indications.						

Assessment and Repair - External Corrosion Direct Assessment (ECDA)

3. ECDA Plan (detail) *Is an adequate ECDA plan and process in place for conducting ECDA? (AR.EC.ECDAPLAN.P) (detail)*

192.925(a) (192.925(b))	Sat+	Sat X	Concern	Unsat	NA	NC
<p>Notes - CIS was used DCVG, current mapper PCM, and depth on the first round. Second round was resistivity (4 pin). Camas was a pretty substantial coating anomalies. Single digit DCVG readings. 2011 magnitude 60 and 80 were dug. They were rock damages.</p>						

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4. ECDA Pre-Assessment (detail) *From the review of the results of selected integrity assessments, does the ECDA pre-assessment process comply with NACE SP0502-2008 Section 3 and §192.925(b)(1)? (AR.EC.ECDAPREASSESS.R) (detail)*

192.925(b)(1) (NACE SP-0502-2008, Section 3.2)	Sat+	Sat X	Concern	Unsat	NA	NC
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TIMP section 4.1
The ECDA Pre-assessment process will comply with ASME B31.8S, section 6.4 and NACE RP0502-2002. The pre-assessment process includes:

- Pipeline data is evaluated to determine whether or not ECDA is feasible
- ECDA regions are identified
- The indirect inspection tools needed to assess the identified ECDA regions are selected.
- The basis for the decisions is documented.

Notes: The first time ECDA is performed on a covered segment, NW Natural applies more restrictive criteria. This involves performing extensive historical research dating back to the original installation and using this information to establish the historical operational baseline data for the pipeline segment. Subsequent ECDA assessments will review data since the last inspection and may reference the baseline.

5. Integration of ECDA Results with other Information (detail) *Is the process for integrating ECDA results with other information adequate? (AR.EC.ECDAINTEGRATION.P) (detail)*

192.917(b) (B31.8S Section 4.5)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: TIMP section 4.2.1 Data Gathering and Integration
Types of data that may be considered are:

- Construction records.
- Operating and maintenance histories, including corrosion control, leak history, repairs, etc.
- Results of prior inspections, excavations of the pipe, and pipe surface evaluations.
- Adjacent pipelines, encroaching structures, or significant operational changes that might impede ECDA.

6. Integration of ECDA Results with other Information (detail) *From a review of records, did the operator integrate other data/information when evaluating data/results? (AR.EC.ECDAINTEGRATION.R) (detail)*

192.917(b) (B31.8S Section 4.5)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: See above

7. ECDA Region Identification (detail) *From the review of the results of selected integrity assessments, did the operator identify ECDA Regions? (AR.EC.ECDAREGION.R) (detail)*

192.925(b)(1) (NACE SP 0502 2008)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: TIMP section 4.2.4

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8. ECDA Indirect Examination (detail) *From the review of the results of selected integrity assessments, does the ECDA indirect inspection process comply with NACE SP0502-2008 Section 4 and ASME B31.8S-2004, Section 6.4? (AR.EC.ECDAINDIRECT.R) (detail)*

192.925(b)(2) (NACE SP0502-2008, Section 4)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

9. ECDA Direct Examination (detail) *From the review of the results of selected integrity assessments, were excavations and data collection performed in accordance with NACE SP0502-2008, Sections 5 and 6.4.2 and ASME B31.8S, Section 6.4? (AR.EC.ECDADIRECT.R) (detail)*

192.925(b)(3) (NACE SP-0502-2008 Sections 5 and 6.4.2)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

10. Quality of ECDA Data Analysis (detail) *From the review of the results of integrity assessments, was analysis of the ECDA data and other information adequate to identify external corrosion threats to the pipeline? (AR.EC.ECDAANALYSIS.R) (detail)*

192.925(b)(4) (192.933(b); B31.8S Section 6.4)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

12. ECDA Post-Assessment (detail) *From the review of the results of selected integrity assessments, were requirements met for post assessment? (AR.EC.ECDAPOSTASSESS.R) (detail)*

192.925(b)(4) (NACE SP-0502-2002 Section 6.2)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Assessment and Repair - Internal Corrosion Direct Assessment

3. ICDA Plan (detail) *Is an adequate ICDA plan and process in place for conducting ICDA? (AR.IC.ICDAPLAN.P) (detail)*

192.927(c) (192.927(a); 192.927(b); ASME B31.8S, Section 6.4 and Appendix B2)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes:
For ICDA they identified critical angles of inclination. The history on the pipe shows no corrosion. At the Camas Gate they cut out a spool and determined there was no liquid and no oxidation.

4. Pre-Assessment (detail) *From the review of the results of selected integrity assessments, were the requirements met for an ICDA pre-assessment? (AR.IC.ICDAPREASSESS.R) (detail)*

192.927(c)(1) (B31.8S Appendix A2)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: See above.

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5. Integration of ICDA Results with other Information (detail) *Is the process for integrating ICDA results with other information adequate?* (AR.IC.ICDAINTEGRATION.P) (detail)

192.917(b) (B31.8S Section 4.5)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: No indications of internal corrosion.						

6. Integration of ICDA Results with Other Information (detail) *From a review of records, were other data/information integrated when evaluating data/results?* (AR.IC.ICDAINTEGRATION.R) (detail)

192.917(b) (B31.8S Section 4.5)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: No indications of internal corrosion.						

7. ICDA Region Identification (detail) *From the review of the results of selected integrity assessments, were ICDA Regions adequately identified?* (AR.IC.ICDAREGION.R) (detail)

192.927(c)(2) (192.927(c)(5))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: No areas of anticipated internal corrosion found through inclinination evaluations.						

8. Identification of Locations for Excavation and Direct Examination (detail) *From the review of the results of selected integrity assessments, were sites identified where internal corrosion may be present?* (AR.IC.ICDADIRECT.R) (detail)

192.927(c)(3) (192.927(c)(5))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: A spool was cut out at the Camas gate and no internal corrosion was indicated.						

10. Post-Assessment Evaluation and Monitoring (detail) *From the review of the results of selected integrity assessments, did the operator assess the effectiveness of the ICDA process?* (AR.IC.ICDAPOSTASSESS.R) (detail)

192.927(c)(4)(i) (192.927(c)(4)(ii))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

11. Quality of ICDA Data Analysis (detail) *From the review of the results of integrity assessments, was analysis of the ICDA data and other information adequate to identify internal corrosion threats to the pipeline?* (AR.IC.ICDAANALYSIS.R) (detail)

192.927 (192.933(b); B31.8S Section 6.4, Appendix A2 and Appendix B2)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Assessment and Repair - Repair Criteria

1. Definition of Discovery (detail) *Does the integrity assessment process properly define discovery and the required time frame? (AR.RC.DISCOVERY.P) (detail)*

192.933(b)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes:

Reviewed four digs from 2011 where coating anomalies were detected. No repairs were required. No corrosion has been found in WA State.

2. Inclusion of All IM Repair Criteria (detail) *Do the operator's Integrity Management Plan and/or maintenance processes include all of the §192.933 repair criteria? (AR.RC.IMPRC.P) (detail)*

192.911(e) (192.933(c); 192.933(d))

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

3. Categorization of Defects (detail) *From the review of the results of integrity assessments, were all defects properly categorized or discovered? (AR.RC.DEFECTCAT.R) (detail)*

192.933(d) (192.933(b); 192.933(c))

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

4. Pressure Reductions Taken in Response to Remediation of Conditions (detail) *From the review of the results of integrity assessments, was an acceptable pressure reduction promptly taken for each Immediate Repair condition or when a repair schedule could not be met? (AR.RC.PRESSREDUCE.R) (detail)*

192.933(a)

Sat+	Sat X	Concern	Unsat	NA X	NC

Notes: None required.

5. Prioritized Schedule (detail) *From the review of the results of integrity assessments, did the operator develop a prioritized schedule? (AR.RC.SCHEDULE.R) (detail)*

192.933(c) (ASME B31.8S, Section 7)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

6. Adequacy of Remediation (detail) *From the review of the results of integrity assessments, is the remediation specified in the prioritized schedule adequate to ensure the integrity of the pipeline until the next scheduled reassessment? (AR.RC.METHOD.R) (detail)*

192.933(a)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes: Reviewed all dig records from 2011

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7. Repair Criteria in Covered Segments (detail) *Does the repair process cover all of the elements for making repairs in covered segments? (AR.RC.CRITERIA.P) (detail)*

192.933(c)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

8. Timely Remediation (detail) *From the review of the results of integrity assessments, were defects in segments that could affect an HCA remediated or dispositioned (i.e., repair, pressure reduction, or notification to PHMSA) within the applicable mandatory time limits of 192.933(d)? (AR.RC.SCHEDULEIMPL.R) (detail)*

192.933(d) (ASME B31.8S Section 7)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Assessment and Repair - Stress Corrosion Cracking

2. SCCDA Plan (detail) *Is an adequate plan developed for performing SCCDA, if the conditions for SCC were present? (AR.SCC.SCCDAPLAN.P) (detail)*

192.929(b) (B31.8S Appendix A3)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: SCC is not an issue in WA State. Only one of the five criteria for scc is present.						

3. Collect and Evaluate Data (detail) *From the review of the results of selected integrity assessments, were data collected and evaluated? (AR.SCC.SCCDADATA.R) (detail)*

192.929(b)(1) (B31.8S Appendix A3.2)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

4. Assessment Method (High pH SCC) (detail) *From the review of the results of selected integrity assessments, did the operator perform an assessment using one of the methods specified in B31.8S Appendix A3? (AR.SCC.SCCDAMETHOD.R) (detail)*

192.929(b)(2) (B31.8S Appendix A3)	Sat+	Sat	Concern	Unsat	NA X	NC
Notes						

5. Assessing for Near Neutral SCC (detail) *From the review of the results of selected integrity assessments, was the pipeline evaluated for near neutral SCC? (AR.SCC.SCCDANEARNEUTRAL.R) (detail)*

192.929(b)(2)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

6. Reassessment Interval (detail) *From the review of the results of selected integrity assessments, did the operator determine a reassessment interval based on SCCDA results? (AR.SCC.SCCDAREASSESSINTRVL.R) (detail)*

192.939(a)(3)	Sat+	Sat	Concern	Unsat	NA X	NC
Notes						

Integrity Management - Baseline Assessments

1. IM Baseline Assessments - Methods (detail) *Does the process include requirements for specifying an assessment method(s) for each covered segment that is best suited for identifying anomalies associated with specific threats identified for the segment? (IM.BA.BAMETHODS.P) (detail)*

192.919(b) (192.921(a); 192.921(c); 192.921(h))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

2. IM Baseline Assessments - Methods (detail) *Was an assessment method(s) specified for each covered segment that is best suited for identifying anomalies associated with specific threats identified for the segment? (IM.BA.BAMETHODS.R) (detail)*

192.919(b) (192.921(a); 192.921(c); 192.921(h))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

3. IM Baseline Assessments - Prioritized Schedule (detail) *Does the BAP process require a schedule for completing the assessment activities for all covered segments and consideration of applicable risk factors in the prioritization of the schedule? (IM.BA.BASCHEDULE.P) (detail)*

192.917(c), (192.919(c); 192.921(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

4. IM Baseline Assessments - Prioritized Schedule (detail) *Does the BAP contain a schedule for completing the assessment activities for all covered segments that appropriately considered the applicable risk factors in the prioritization of the schedule as required by the process? (IM.BA.BASCHEDULE.R) (detail)*

192.917(c) (192.919(c); 192.921)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

5. IM Baseline Assessments - Prior Assessments (detail) *Does the process require that prior assessment methods meet the requirements of §192.921(a) and associated remedial actions to have been carried out to address conditions listed in §192.933? (IM.BA.BAPRIOR.P) (detail)*

192.921(e)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

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6. IM Baseline Assessments - Prior Assessments (detail) *From a review of selected records, have prior assessment methods met the requirements of §192.921(a) and associated remedial actions to have been carried out to address conditions listed in §192.933? (IM.BA.BAPRIOR.R) (detail)*

192.921(e)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

7. IM Baseline Assessments - New HCAs/Newly Installed Pipe (detail) *Does the process include requirements for updating the baseline assessment plan for new HCAs and newly installed pipe? (IM.BA.BANEW.P) (detail)*

192.905(c) (192.921(f); 192.921(g))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: NWN uses the Urban Growth boundary.						

8. IM Baseline Assessments - New HCAs/Newly Installed Pipe (detail) *Has the BAP been adequately updated for new HCAs and newly installed pipe? (IM.BA.BANEW.R) (detail)*

192.905(c), (192.921(f); 192.921(g))	Sat+	Sat	Concern	Unsat	NA X	NC
Notes: No newly installed pipe						

9. IM Baseline Assessments - Environmental & Safety Risks (detail) *Does the process include requirements for conducting integrity assessments (baseline and reassessment) in a manner that minimizes environmental and safety risks? (IM.BA.BAENVIRON.P) (detail)*

192.911(m) (192.911(o); 192.919(e); ASME B31.8S-2004, Section 11)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

10. IM Baseline Assessments - Environmental & Safety Risks (detail) *From a review of selected records, have integrity assessments (baseline and reassessment) been conducted in a manner that minimizes environmental and safety risks? (IM.BA.BAENVIRON.R) (detail)*

192.911(m) (192.11(o); 192.919(e); ASME B31.8S-2004, Section 11)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Integrity Management - Continual Evaluation and Assessment

1. Periodic Evaluations (detail) *Does the process include requirements for a periodic evaluation of pipeline integrity based on data integration and risk assessment to identify the threats specific to each covered segment and the risk represented by these threats? (IM.CA.PERIODICEVAL.P) (detail)*

192.937(b) (192.917(a); 192.917(b); 192.917(c); 192.917(d); 192.917(e))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

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2. Periodic Evaluations (detail) *Have periodic evaluations of pipeline integrity been performed based on data integration and risk assessment to identify the threats specific to each covered segment and the risk represented by these threats? (IM.CA.PERIODICEVAL.R) (detail)*

192.937(b) (192.917(a); 192.917(b); 192.917(c); 192.917(d); 192.917(e))

Sat+	Sat X	Concern	Unsat	NA	NC

Notes
New HCA analysis done in 2012. HCA analysis done constantly in WA based on class location changes. WA State is an Urban Growth area and the Camas transmission HCA's are based on class location not the PIR.
Data integration for threat identification done through risk reassessment model originally ran in 2008. Scheduled to be done again in 2005, will not exceed 7 years.

3. IM Continual Assessments - Methods (detail) *Is the approach for establishing reassessment method(s) consistent with the requirements in §192.937(c)? (IM.CA.REASSESSMETHOD.P) (detail)*

192.937(c) (192.931)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes: In general, NW Natural plans to reassess pipeline segments using the original assessment methodology on an interval not to exceed 7 years. NW Natural will reevaluate each pipeline segment prior to reassessment to assure that the proper methodology is used to assess all the potential integrity threats. If NW Natural chooses in the future to assess pipelines with either Low Stress Reassessment or Confirmatory Direct Assessment, complete assessment methodologies will be established and they will be performed on intervals not to exceed the deadlines established in this section.

4. IM Continual Assessments - Methods (detail) *Has the approach for establishing the reassessment method been performed in a manner consistent with the requirements in §192.937(c) and as required? (IM.CA.REASSESSMETHOD.R) (detail)*

192.937(c) (192.931)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

5. Low Stress Reassessments (detail) *Does the process include requirements for the "low stress reassessment" method to address threats of external and/or internal corrosion for pipelines operating at below 30% SMYS. (IM.CA.LOWSTRESSREASSESS.P) (detail)*

192.941(a) (192.941(b); 192.941(c))

Sat+	Sat X	Concern	Unsat	NA	NC

Notes 6.3 Low Stress Reassessment
 NW Natural does not intend to use this method at this time. If NW Natural chooses to use this method, a process will be developed per rule guidelines.

6. Low Stress Reassessments (detail) *Is the implementation of "low stress reassessment" method to address threats of external and/or internal corrosion adequate and being performed as required? (IM.CA.LOWSTRESSREASSESS.R) (detail)*

192.941(a) (192.941(b); 192.941(c))

Sat+	Sat X	Concern	Unsat	NA X	NC

Notes: Not used.

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7. Reassessment Intervals (detail) *Is the process for establishing the reassessment intervals consistent with §192.939 and ASME B31.8S-2004? (IM.CA.REASSESSINTERVAL.P) (detail)*

192.937(a) (192.939(a); 192.939(b); 192.913(c); ASME B31.8S-2004, Section 5, Table 3)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes:
In general, NW Natural plans to reassess pipeline segments using the original assessment methodology on an interval not to exceed 7 years. NW Natural will reevaluate each pipeline segment prior to reassessment to assure that the proper methodology is used to assess all the potential integrity threats. If NW Natural chooses in the future to assess pipelines with either Low Stress Reassessment or Confirmatory Direct Assessment, complete assessment methodologies will be established and they will be performed on intervals not to exceed the deadlines established in this section.

8. Reassessment Intervals (detail) *Have reassessment intervals been established in a manner consistent with §192.939 and ASME B31.8S-2004 as required? (IM.CA.REASSESSINTERVAL.R) (detail)*

192.937(a) (192.939(a); 192.939(b); 192.913(c); ASME B31.8S-2004, Section 5, Table 3)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: See above

9. Waiver from Reassessment Interval in Limited Situations (detail) *Does the process include requirements for reassessment interval waivers? (IM.CA.REASSESSWAIVER.P) (detail)*

192.943(a) (192.943(b))	Sat+	Sat	Concern	Unsat	NA X	NC
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Notes
Not required.

10. Waiver from Reassessment Interval in Limited Situations (detail) *Have reassessment interval waivers been adequately implemented, if applicable? (IM.CA.REASSESSWAIVER.R) (detail)*

192.943(a) (192.943(b))	Sat+	Sat X	Concern	Unsat	NA X	NC
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Notes
Not required.

11. Deviation from Reassessment Requirements based on Exceptional Performance (detail) *Does the process include requirements for deviations from reassessment requirements based on exceptional performance? (IM.CA.REASSESEXCPERF.P) (detail)*

192.913(a) (192.913(b); 192.913(c); ASME B31.8S-2004)	Sat+	Sat	Concern	Unsat	NA X	NC
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Notes
No deviation.

12. Deviation from Reassessment Requirements based on Exceptional Performance (detail)

Have deviations from reassessment requirements based on exceptional performance been adequately handled, if applicable? (IM.CA.REASSESEXCPERF.R) (detail)

192.913(a) (192.913(b); 192.913(c); ASME B31.8S-2004)

Sat+	Sat	Concern	Unsat	NA X	NC
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Notes

Integrity Management - High Consequence Areas

1. IM High Consequence Areas - HCA Identification (detail) *Does the process include the methods defined in §192.903 High Consequence Area (1) and/or §192.903 High Consequence Area (2) to be applied to each pipeline for the identification of high consequence areas?* (IM.HC.HCAID.P) (detail)

192.905(a)

Sat+	Sat	Concern	Unsat	NA	NC
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Notes
NWN uses the Urban Growth boundary in WA State which determines if a PIR or Class location is used.

2. IM High Consequence Areas - HCA Identification (detail) *Was the identification of pipeline segments in high consequence areas completed by December 17, 2004 in accordance with process requirements?* (IM.HC.HCAID.R) (detail)

192.905(a) (192.907(a); 192.911(a))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: Yes

3. IM High Consequence Areas - Potential Impact Radius (detail) *Is the process for defining and applying potential impact radius (PIR) for establishment of high consequence areas consistent with the requirements of §192.903?* (IM.HC.HCAPIR.P) (detail)

192.903 (192.905(a))

Sat+	Sat	Concern	Unsat	NA X	NC
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Notes: See above

4. IM High Consequence Areas - Potential Impact Radius (detail) *Do records indicate use of potential impact radius (PIR) for establishment of high consequence areas consistent with requirements of §192.903?* (IM.HC.HCAPIR.R) (detail)

192.903 (192.905(a))

Sat+	Sat	Concern	Unsat	NA X	NC
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Notes: See above

5. IM High Consequence Areas - Identified Sites (detail) *Does the process for identification of identified sites include the sources listed in §192.905(b) for those buildings or outside areas meeting the criteria specified by §192.903 and require the source(s) of information selected to be documented?* (IM.HC.HCASITES.P) (detail)

192.903 (192.905(b))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: Yes

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6. IM High Consequence Areas - Identified Sites (detail) *Do records indicate identification of identified sites being performed as required? (IM.HC.HCASITES.R) (detail)*

192.903 (192.905(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: Yes						

7. IM High Consequence Areas - Identification Method 1 (Class Locations) (detail) *Is the integrity management process adequate for application of §192.903 High Consequence Area definition (1) for identification of HCAs? (IM.HC.HCAMETHOD1.P) (detail)*

192.903(1)(i) (192.903(1)(ii); 192.903(1)(iii); 192.903(1)(iv))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes Depending if within an Urban Growth Boundary or not						

8. IM High Consequence Areas - Identification Method 1 (Class Locations) (detail) *Do records indicate adequate application of the §192.903 High Consequence Area definition (1) for the identification of HCAs? (IM.HC.HCAMETHOD1.R) (detail)*

192.903 (1)(i) (192.903(1)(ii); 192.903(1)(iii); 192.903(1)(iv))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes See above						

9. IM High Consequence Areas - Identification Method 2 (Potential Impact Radius) (detail) *Is the integrity management process adequate for application of §192.903 High Consequence Area definition (2) for identification of HCAs? (IM.HC.HCAMETHOD2.P) (detail)*

192.903(2)(i) (192.903(2)(ii))	Sat+	Sat X	Concern	Unsat	NA X	NC
Notes See above						

10. IM High Consequence Areas - Identification Method 2 (Potential Impact Radius) (detail) *Do records indicate adequate application of §192.903 High Consequence Area definition (2) for identification of HCAs? (IM.HC.HCAMETHOD2.R) (detail)*

192.903(2)(i) (192.903(2)(ii))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes See above						

11. IM High Consequence Areas - Newly Identified HCAs (detail) *Does the process include a requirement for evaluation of new information that may show that a pipeline segment impacts a high consequence area? (IM.HC.HCANEW.P) (detail)*

192.905(c)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

12. IM High Consequence Areas - Newly Identified HCAs (detail) *Are evaluations of new information that may show that a pipeline segment impacts a high consequence area being performed as required? (IM.HC.HCANEW.R) (detail)*

192.905(c)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Integrity Management - Preventive and Mitigative Measures

1. P&M Measures - General Requirements (detail) *Does the process include requirements to identify additional measures to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a high consequence area? (IM.PM.PMMGENERAL.P) (detail)*

192.935(a)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

2. P&M Measures - General Requirements (detail) *Have additional measures been identified and implemented (or scheduled) beyond those already required by Part 192 to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in an HCA? (IM.PM.PMMGENERAL.R) (detail)*

192.935(a)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

3. P&M Measures - Third Party Damage (detail) *Does the preventive and mitigative process include requirements that threats due to third party damage be addressed? (Note: A subset of these enhancements are required for pipelines operating below 30% SMYS - See IM.PM.PMMTPDSMYS.P) (IM.PM.PMMTPD.P) (detail)*

192.917(e)(1) (192.935(b)(1); 192.935(e))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

4. P&M Measures - Third Party Damage (detail) *Has P&MM been implemented regarding threats due to third party damage as required by the process? (IM.PM.PMMTPD.R) (detail)*

192.917(e)(1) (192.935(b)(1); 192.935(e))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

5. P&M Measures - Third Party Damage (Special Cases) (detail) *Does the process include requirements for preventive and mitigative requirements for pipelines operating below 30% SMYS? (IM.PM.PMMTPDSMYS.P) (detail)*

192.935(d) (192.935(e); 192 Table E.II.1)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

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6. P&M Measures - Third Party Damage (Special Cases) (detail) *Are preventive and mitigative requirements for pipelines operating below 30% SMYS being performed as required?* (IM.PM.PMTPDMSYS.R) (detail)

192.935(d) (192.935(e); 192 Table E.II.1)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

7. P&M Measures - Outside Force Damage (detail) *Does the process adequately address significant threats due to outside force (e.g., earth movement, floods, unstable suspension bridge)?* (IM.PM.PMMPDF.P) (detail)

192.935(b)(2)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

8. P&M Measures - Outside Force Damage (detail) *Are significant threats due to outside force (e.g., earth movement, floods, unstable suspension bridge) being adequately addressed?* (IM.PM.PMMPDF.R) (detail)

192.935(b)(2)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

9. P&M Measures - Corrosion (detail) *Does the process adequately account for taking required actions to address significant corrosion threats?* (IM.PM.PMMPDR.P) (detail)

192.917(e)(5)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

10. P&M Measures - Corrosion (detail) *Are required actions being taken to address significant corrosion threats as required?* (IM.PM.PMMPDR.R) (detail)

192.917(e)(5)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

11. P&M Measures - Automatic Shut-Off Valves or Remote Control Valves (detail) *Does the process include requirements to decide if automatic shut-off valves or remote control valves represent an efficient means of adding protection to potentially affected high consequence areas?* (IM.PM.PMMPASORCV.P) (detail)

192.935(c)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 8						

12. P&M Measures - Automatic Shut-Off Valves or Remote Control Valves (detail) *Has an adequate determination been made to determine if automatic shut-off valves or remote control valves represent an efficient means of adding protection to potentially affected high consequence areas? (IM.PM.PMMASORCV.R) (detail)*

192.935(c)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: TIMP section 8

Integrity Management - Quality Assurance

1. Quality Assurance (detail) *Are quality assurance processes in place for risk management applications that meet the requirements of ASME B31.8S-2004, Section 12? (IM.QA.QARM.P) (detail)*

192.911(l)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes
TIMP section 12

2. Quality Assurance (detail) *Do records indicate the quality assurance processes for risk management applications meet the requirements of ASME B31.8S-2004, Section 12 and are the processes being performed as required? (IM.QA.QARM.R) (detail)*

192.911(l)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes
B318S

12.4 program documentation. TIMP section 10.1. For the life of the pipe.

Section 12 B31-8. They are performing the program reviews.

A plan review was performed in Sept/Oct 2013 which included major changes.

3. Personnel Qualification and Training Requirements (detail) *Does the process include requirements to assure personnel involved in the integrity management program are qualified for their assigned responsibilities? (IM.QA.IMPERSONNEL.P) (detail)*

192.911(l) (192.915; ASME B31.8S-2004, Section 12(b)(4))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

4. Personnel Qualification and Training Requirements (detail) *Are personnel involved in the integrity management program qualified for their assigned responsibilities? (IM.QA.IMPERSONNEL.R) (detail)*

192.911(l) (192.915(a); 192.915(b); 192.915(c); ASME B31.8S-2004, Section 12(b)(4))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes: TIMP section 12

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5. Invoking Non-Mandatory Statements in Standards (detail) *Does the process include requirements that non-mandatory requirements (e.g., "should" statements) from industry standards or other documents invoked by Subpart O (e.g., ASME B31.8S-2004 and NACE RP0502-2002) be addressed by an appropriate approach? (IM.QA.IMNONMANDT.P) (detail)*

192.7(a)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: Yes section 12.3						

6. Management of Change (detail) *Are the processes for management of changes to the IMP and management of change of associated procedures and processes adequate? (IM.QA.IMMOC.P) (detail)*

192.909(a) (192.909(b); 192.911(k))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes Yes						

7. Management of Change (detail) *Are changes to the IMP and management of changes to IMP-related processes being performed as required? (IM.QA.IMMOC.R) (detail)*

192.909(a) (192.909(b); 192.911(k))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes Reviewed MOC forms for 2013 and 2014.						

8. Performance Measures (detail) *Does the process include requirements for measuring and reporting integrity management program effectiveness? (IM.QA.IMPERFMEAS.P) (detail)*

192.945(a) (192.913(b); 192.951; ASME B31.8S-2004 Section 12(b)(5))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: TIMP section 9						

9. Performance Measures (detail) *Has the IMP effectiveness been adequately measured and reported, as applicable, to PHMSA? (IM.QA.IMPERFMEAS.R) (detail)*

192.945(a) (192.913(b); 192.951; ASME B31.8S-2004 Section 12(b)(5))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes: see above						

10. Record Keeping (detail) *Is the process adequate to assure that required records are maintained for the useful life of the pipeline? (IM.QA.RECORDS.P) (detail)*

192.947(a) (192.947(b); 192.947(c); 192.947(d); 192.947(e); 192.947(f); 192.947(g); 192.947(h); 192.947(i); 192.911(n); ASME B31.8S-2004 Sections 12.1, 12.2(b)(1))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

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GAS TRANSMISSION INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

11. Record Keeping (detail) *Are required records being maintained for the useful life of the pipeline?* (IM.QA.RECORDS.R) (detail)

192.947(a) (192.947(b); 192.947(c); 192.947(d); 192.947(e); 192.947(f); 192.947(g); 192.947(h); 192.947(i); ASME B31.8S-2004 Sections 12.1, 12.2(b)(1))

Sat+	Sat X	Concern	Unsat	NA	NC

Notes: TIMP section 10

Integrity Management - Risk Analysis

1. Threat Identification (detail) *Does the process include requirements to identify and evaluate all potential threats to each covered pipeline segment?* (IM.RA.THREATID.P) (detail)

192.917(a) (192.917(e); 192.913(b)(1); ASME B31.8S-2004, Section 2.2 and Section 5.10)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes: TIMP section 3

2. Threat Identification (detail) *Do records indicate that all potential threats to each covered pipeline segment have been identified and evaluated?* (IM.RA.THREATID.R) (detail)

192.917(a) (192.917(e); 192.913(b)(1); ASME B31.8S-2004, Section 2.2 and Section 5.10)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes
The Camas transmission line has low frequency ERW pipe installed in 1956. NWN states it is not any more of a threat than other ERW vintage pipe. . Stress level is less than 30%

3. Data Gathering (detail) *Does the process include requirements to gather existing data and information on the entire pipeline that could be relevant to covered segments?* (IM.RA.RADATA.P) (detail)

192.917(b) (192.917(e)(1); 192.911(k); ASME B31.8S-2004, Sections 4, 5.7(e), 11(a), 11(d), Appendix A)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

4. Data Gathering (detail) *Is existing data and information on the entire pipeline that could be relevant to covered segments being adequately gathered?* (IM.RA.RADATA.R) (detail)

192.917(b) (192.917(e)(1); 192.911(k); ASME B31.8S-2004, Sections 4, 5.7(e), 11(a), 11(d), Appendix A)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes

5. Data Integration (detail) *Does the process include requirements to integrate existing data and information on the entire pipeline that could be relevant to covered segments?* (IM.RA.RAINTEGRATE.P) (detail)

192.917(b) (192.917(e)(1); 192.911(k); ASME B31.8S-2004, Sections 4, 5.7(e), 11(a), 11(d), Appendix A)

Sat+	Sat X	Concern	Unsat	NA	NC

Notes
TIMP section 3

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6. Data Integration (detail) *Is existing data and information on the entire pipeline that could be relevant to covered segments being adequately integrated?* (IM.RA.RAINTEGRATE.R) (detail)

192.917(b) (192.917(e)(1); 192.911(k); ASME B31.8S-2004, Sections 4, 5.7(e), 11(a), 11(d), Appendix A)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

7. Risk Analysis - Methodology (detail) *Does the process include requirements for a risk assessment that follows ASME B31.8S-2004, Section 5, and that considers the identified threats for each covered segment?* (IM.RA.RAMETHOD.P) (detail)

192.917(c) (192.917(d); ASME B31.8S-2004, Section 5.3, Section 5.4, Section 5.5, Section 5.12)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

8. Risk Analysis - Determination of Risk (detail) *Does the process include requirements that factors that could affect the likelihood of a release, and factors that could affect the consequences of potential releases, be accounted for and combined in an appropriate manner to produce a risk value for each pipeline segment?* (IM.RA.RAFACTORS.P) (detail)

192.917(c) (ASME B31.8S-2004, Section 3.1, Section 3.3, Section 5.2, Section 5.3, and Section 5.7)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

9. Risk Analysis - Determination of Risk (detail) *Is risk analysis data combined in an appropriate manner to produce a risk value for each pipeline segment?* (IM.RA.RAFACTORS.R) (detail)

192.917(c) (ASME B31.8S-2004, Section 3.1, Section 3.3, Section 5.2, Section 5.3, and Section 5.7)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

10. Risk Analysis - Validation and Updates (detail) *Does the process provide for revisions to the risk assessment if new information is obtained or conditions change on the pipeline segments?* (IM.RA.RAMOC.P) (detail)

192.917(c) (ASME B31.8S-2004, Section 5.4, 5.7, 5.11, 5.12)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

11. Risk Analysis - Validation and Updates (detail) *Was the risk assessment revised as necessary as new information is obtained or conditions change on the pipeline segments?* (IM.RA.RAMOC.R) (detail)

192.917(c) (ASME B31.8S-2004, Section 5.4, 5.7, 5.11, 5.12)

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

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