

Inspection Output (IOR)

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Inspection Information

Inspection Name	7818 - Cardinal FG - SI	Operator(s)	CARDINAL FG (32176)	Plan Submitted	03/09/2019
Status	PLANNED	Lead	Lex Vinsel	Plan Approval	03/14/2019 by Joe Subsit
Start Year	2019	Supervisor	Joe Subsit	All Activity Start	03/11/2019
System Type	GT	Director	Sean Mayo	All Activity End	03/25/2019
Protocol Set ID	GT.2018.02			Inspection Submitted	--
				Inspection Approval	--

Inspection Summary

Inspection Scope and Summary

Standard inspection for Cardinal FG Transmission Pipeline >

Facilities visited and Total AFOD

Cardinal FG in Winlock WA

Total AFOD is 4

7818 - Inspection was started on March 11 and went to March 13 (AFOD 3) when we ran out of time. Will reconvene on 3/25/2019 with the expectation we will complete inspection and have an Exit Interview the same day. end lev

Summary of Significant Findings

(DO NOT Discuss Enforcement options)

< No findings or concerns >

Primary Operator contacts and/or participants

Bob Cosentino of Cosentino Consulting

Operator executive contact and mailing address for any official correspondence

< enter text here >

Last day with Exit Interview expected complete by end of day, March 25, 2019

Scope (Assets)

#	Short Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1.	88991	Cardinal FG	unit	88991	Compressor Stations Storage Fields Bottle/Pipe - Holders Vault Service Line	169	169	169	100.0%

#	Short Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
					Offshore GOM OCS Cast or Ductile Iron Copper Pipe Aluminum pipe Plastic pipe CDA AMAOP Abandoned				

1. Percent completion excludes unanswered questions planned as "always observe".

Plans

Plan #	Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent Notes
1.	88991	Initial Inspection	AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, UNGS, GENERIC	P, R	Detail
2.	88991	Field Observations Review	AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, UNGS, GENERIC	O	Detail

Plan Implementations

Activity #	Name	SMART Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
1.	Office	--	03/11/2019 03/25/2019	Initial Inspection	AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, UNGS, GENERIC	all assets	P, R	151	151	151	100.0%
2.	Field	--	03/12/2019 03/14/2019	Field Observations Review	AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, UNGS, GENERIC	all assets	all types	18	18	18	100.0%

1. Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.
2. Percent completion excludes unanswered questions planned as "always observe".

Forms

No.	Entity	Form Name	Status	Date Completed	Activity Name	Asset
1.	Attendance List	Office	COMPLETED	03/25/2019	Office	88991
2.	Attendance List	Field on March 12, 2019	COMPLETED	03/25/2019	Field	88991

Results (all values, 169 results)

183 (instead of 169) results are listed due to re-presentation of questions in more than one sub-group.

AR.IL: In-Line Inspection (Smart Pigs)

1. Question Result, ID, References **NA, AR.IL.ILIVALIDATE.R, 192.947(g) (192.921(a)(1))**

Question Text *Do records demonstrate that the operator has validated ILI assessment results per their process?*

Assets Covered **88991**

Result Notes No High Consequence Areas(HCA) on pipeline.

AR.PTI: Integrity Assessment Via Pressure Test

2. Question Result, ID, References Sat, AR.PTI.PRESSTESTACCEP.P, 192.503(a) (192.503(b), 192.503(c), 192.503(d), 192.505(a), 192.505(b), 192.505(c), 192.505(d), 192.505(e), 192.507(a), 192.507(b), 192.507(c), 192.513(a), 192.513(b), 192.513(c), 192.513(d), 192.921(a)(2))
Question Text *Were test acceptance criteria and processes sufficient to assure the basis for an acceptable pressure test?*
Assets Covered 88991
Result Notes Reviewed hydrostatic pressure test records, MAOP IS 1000 PSI
3. Question Result, ID, References Sat, AR.PTI.PRESSTESTRESULT.R, 192.517(a) (192.505(a), 192.505(b), 192.505(c), 192.505(d), 192.505(e), 192.507(a), 192.507(b), 192.507(c), 192.513(a), 192.513(b), 192.513(c), 192.513(d), 192.517(b), 192.617, 192.619(a), 192.919(e), 192.921(a)(2))
Question Text *Do the test records validate the pressure test?*
Assets Covered 88991
Result Notes Reviewed hydrostatic pressure test records, MAOP IS 1000 PSI

AR.RC: Repair Criteria

4. Question Result, ID, References NA, AR.RC.SCHEDULEIMPL.R, 192.947(f) (192.933(d))
Question Text *Do records demonstrate that defects in covered segments were remediated (i.e., repair, pressure reduction, or notification to PHMSA) within the applicable mandatory time limits of 192.933(d)?*
Assets Covered 88991
Result Notes No HCA's in pipeline. No integrity management program required.

AR.RMP: Repair Methods and Practices

5. Question Result, ID, References Sat, AR.RMP.SAFETY.P, 192.605(b)(9) (192.713(b))
Question Text *Does the process ensure that repairs are made in a safe manner and are made so as to prevent damage to persons and property?*
Assets Covered 88991
Result Notes O&M Section 10 Integrity Repairs
6. Question Result, ID, References NA, AR.RMP.IGNITION.R, 192.751(a) (192.751(b), 192.751(c))
Question Text *Do records indicate adequate steps were taken by the operator to prevent accidental ignition prior to performing work?*
Assets Covered 88991
Result Notes No hot work on pipeline, no records.
7. Question Result, ID, References Sat, AR.RMP.FIELDREPAIRDEFECT.P, 192.605(b)(1) (192.713(a), 192.713(b))
Question Text *Is the process adequate for the permanent field repair of defects in transmission lines?*
Assets Covered 88991
Result Notes O&M Section 10 Integrity Repairs appears to be adequate.
8. Question Result, ID, References Sat, AR.RMP.FIELDREPAIRWELDS.P, 192.605(b) (192.715(a), 192.715(b), 192.715(c))
Question Text *Is the process adequate for the permanent field repair of welds?*
Assets Covered 88991
Result Notes O&M Section 10 Integrity Repairs appears to be adequate.
9. Question Result, ID, References Sat, AR.RMP.FIELDREPAIRLEAK.P, 192.605(b) (192.717(a), 192.717(b))
Question Text *Is there an adequate process for the permanent field repair of leaks on transmission lines?*
Assets Covered 88991
Result Notes O&M Section 10 Integrity Repairs appears to be adequate.

10. Question Result, ID, References **Sat, AR.RMP.WELDTTEST.P, 192.605(b) (192.719(a), 192.719(b))**
Question Text *Is the process adequate for the testing of replacement pipe and repairs made by welding on transmission lines?*
Assets Covered **88991**
Result Notes **O&M Section 10 Integrity Repairs appears to be adequate.**

DC.CO: Construction

11. Question Result, ID, References **NA, DC.CO.CLEAR.R, 192.325(a) (192.325(b), 192.325(c))**
Question Text *Do records indicate pipe is installed with clearances in accordance with 192.325, and (if plastic) installed as to prevent heat damage to the pipe?*
Assets Covered **88991**
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
12. Question Result, ID, References **Sat, DC.CO.COVER.R, 192.327(a) (192.327(b), 192.327(c), 192.327(d), 192.327(e))**
Question Text *Is onshore piping minimum cover as specified in 192.327?*
Assets Covered **88991**
Result Notes **Construction drawings provide for more than required 36-inch cover.**

DC.WELDINSPECTION: Construction Weld Inspection

13. Question Result, ID, References **NA, DC.WELDINSPECTION.WELDNDR.R, 192.243(a) (192.243(b)(1), 192.243(b)(2), 192.243(c), 192.243(a) Ref to .243(a) seems erroneous here and for subsequent O version.)**
Question Text *Do records indicate that NDT implementation is adequate?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection.**
14. Question Result, ID, References **NA, DC.WELDINSPECTION.WELDVISUALQUAL.P, 192.303 (192.241(a), 192.241(b), 192.241(c))**
Question Text *Does the process require visual inspections of welds to be conducted by qualified inspectors?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection.**
15. Question Result, ID, References **NA, DC.WELDINSPECTION.WELDVISUALQUAL.R, 192.241(a) (192.241(b), 192.241(c), 192.807(a), 192.807(b))**
Question Text *Do records indicate that individuals who perform visual inspection of welding are qualified by appropriate training and experience, as required by 192.241(a)?*
Assets Covered **88991**
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
16. Question Result, ID, References **NA, DC.WELDINSPECTION.WELDNDR.P, 192.243(a) (192.243(b)(1), 192.243(b)(2), 192.243(c), 192.243(d), 192.243(e).)**
Question Text *Is there a process for nondestructive testing and interpretation?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection.**

DC.WELDERQUAL: Construction Welder Qualification

17. Question Result, ID, References **NA, DC.WELDERQUAL.WELDERQUAL.R, 192.227(a) (192.227(b))**
Question Text *Do records indicate that welders are qualified in accordance with 192.227(a)?*
Assets Covered **88991**
Result Notes **No welding since construction in 2006.**

DC.WELDPROCEDURE: Construction Welding Procedures

18. Question Result, ID, References **NA, DC.WELDPROCEDURE.WELD.P, 192.225(a) (192.225(b))**
 Question Text *Does the process require welding to be performed by qualified welders using qualified welding procedures and are welding procedures and qualifying tests required to be recorded in detail?*
 Assets Covered **88991**
 Result Notes **No welding since construction in 2006.**
19. Question Result, ID, References **NA, DC.WELDPROCEDURE.WELD.R, 192.225(a) (192.225(b))**
 Question Text *Do records indicate weld procedures are being qualified in accordance with 192.225?*
 Assets Covered **88991**
 Result Notes **No welding since construction in 2006.**
20. Question Result, ID, References **NA, DC.WELDPROCEDURE.WELDPREP.P, 192.303 (192.235)**
 Question Text *Does the process require certain preparations for welding, in accordance with 192.235?*
 Assets Covered **88991**
 Result Notes **No welding since construction in 2006.**

DC.DPCOPP: Design of Pipe - Overpressure Protection

21. Question Result, ID, References **NA, DC.DPCOPP.OVERPRESSURE.O, 192.195(a) (192.199(a), 192.199(b), 192.199(c), 192.199(d), 192.199(e), 192.199(f), 192.199(g), 192.199(h), 192.201(a), 192.201(b), 192.201(c))**
 Question Text *Are required pressure relieving or pressure limiting devices being installed, and do they meet the requirements of 192.199 and 192.201?*
 Assets Covered **88991**
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review. No transmission line valves or pressure limiting devices required for system protection. Williams input pressure will not exceed MAOP of 890 PSIG. Cardinal pipeline MAOP is 1000 PSIG.**

DC.DPC: Design of Pipe Components

22. Question Result, ID, References **Sat, DC.DPC.VALVE.R, 192.145(a) (192.145(b), 192.145(c), 192.145(d))**
 Question Text *Do records indicate valves comply with the requirements of 192.145?*
 Assets Covered **88991**
 Result Notes **Pipeline valves comply with API 6D**
23. Question Result, ID, References **NA, DC.DPC.VALVESPACE.R, 192.179(a) (192.179(a)(1), 192.179(a)(2), 192.179(a)(3), 192.179(a)(4), 192.179(b), 192.179(c), 192.179(d))**
 Question Text *Do records indicate that transmission line valve spacing is in accordance with 192.179(a)?*
 Assets Covered **88991**
 Result Notes **Valve is at beginning and end of pipeline. Total jurisdictional length is 2.89 miles.**
24. Question Result, ID, References **Sat, DC.DPC.VALVESPACE.O, 192.141 (192.179(a), 192.179(b), 192.179(c), 192.179(d))**
 Question Text *Are transmission line valves being installed as required of 192.179?*
 Assets Covered **88991**
 Result Notes **No transmission line valves required for system protection. Input pressure will not exceed 890 PSIG as this is Williams pipe MAOP. MAOP of Cardinal pipeline is 1000 PSIG.**
25. Question Result, ID, References **NA, DC.DPC.INTCORRODE.P, 192.453 (192.476(a), 192.476(b), 192.476(c))**
 Question Text *Does the process require that the transmission line project has features incorporated into its design and construction to reduce the risk of internal corrosion, as required of 192.476?*
 Assets Covered **88991**
 Result Notes **Pipeline only transports dry Natural Gas.**
26. Question Result, ID, References **Sat, DC.DPC.INTCORRODE.O, 192.476(a) (192.476(b), 192.476(c))**

Question Text *Does the transmission project's design and construction comply with 192.476?*

Assets Covered 88991

Result Notes Pipeline only transports commercial grade natural gas. Low moisture content.

DC.MO: Maintenance and Operations

27. Question Result, ID, References NA, DC.MO.MAOPLIMIT.R, 192.605(b)(5)

Question Text *Do records indicate that the pressure limitations on the pipeline are not exceeded?*

Assets Covered 88991

Result Notes Pipeline MAOP is higher than the maximum delivery pressure.

28. Question Result, ID, References Sat, DC.MO.MAOPLIMIT.O, 192.605(b)(5)

Question Text *During startup or shut-in, is it assured that the pressure limitations on the pipeline were not exceeded?*

Assets Covered 88991

Result Notes Input pressure will not exceed 890 PSIG as this is Williams pipe MAOP. MAOP of Cardinal pipeline is 1000 PSIG.

DC.MA: Materials

29. Question Result, ID, References NA, DC.MA.MARKING.P, 192.53(a) (192.53(b), 192.53(c), 192.63(a), 192.63(b), 192.63(c), 192.63(d))

Question Text *Does the process require pipe, valves, and fittings to be marked?*

Assets Covered 88991

Result Notes No construction on pipeline since 2006.

DC.PT: Pressure Testing

30. Question Result, ID, References NA, DC.PT.PRESSTESTHIGHSTRESS.R, 192.517(a) (192.505(a), 192.505(b), 192.505(c), 192.505(d), 192.505(e))

Question Text *Is pressure testing conducted in accordance with 192.505?*

Assets Covered 88991

Result Notes Not required. 22.8% is max SMYS for pipeline.

EP.ERG: Emergency Response

31. Question Result, ID, References Sat, EP.ERG.REVIEW.R, 192.605(a)

Question Text *Have annual reviews been conducted of the emergency plans and procedures as required, and any updates completed as appropriate?*

Assets Covered 88991

Result Notes Annual reviews are recorded in the front of the Natural Gas Pipeline Emergency Procedures Manual.

32. Question Result, ID, References Sat, EP.ERG.LOCATION.O, 192.615(b)(1)

Question Text *Are supervisors provided the applicable portions of the emergency plan and procedures?*

Assets Covered 88991

33. Question Result, ID, References Sat, EP.ERG.NOTICES.P, 192.615(a)(1)

Question Text *Does the emergency plan include procedures for receiving, identifying, and classifying notices of events which need immediate response?*

Assets Covered 88991

Result Notes Emergency Manual Figure 2.1 and Section 2.5.

34. Question Result, ID, References Sat, EP.ERG.COMMSYS.P, 192.615(a) (192.615(a)(2))

- Question Text *Does the emergency plan include procedures for establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials?*
- Assets Covered 88991
- Result Notes Emergency Manual Section 3 Emergency Contact Maintenance.
35. Question Result, ID, References Sat, EP.ERG.RESPONSE.P, 192.615(a) (192.615(a)(3), 192.615(a)(11), 192.615(b)(1))
- Question Text *Does the emergency plan include procedures for making a prompt and effective response to a notice of each type of emergency, including gas detected inside or near a building, a fire or explosion near or directly involving a pipeline facility, or a natural disaster?*
- Assets Covered 88991
- Result Notes Emergency Procedures Manual Section 4. Emergency Response
36. Question Result, ID, References Sat, EP.ERG.READINESS.P, 192.615(a) (192.615(a)(4))
- Question Text *Does the process include procedures for ensuring the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency?*
- Assets Covered 88991
- Result Notes Emergency Manual Section 8 Emergency Equipment.
37. Question Result, ID, References Sat, EP.ERG.PUBLICPRIORITY.P, 192.615(a) (192.615(a)(5))
- Question Text *Does the emergency plan include procedures for taking actions directed toward protecting people first and then property?*
- Assets Covered 88991
- Result Notes Emergency Manual Section 1.1.1
38. Question Result, ID, References Sat, EP.ERG.PRESSREDUCESD.P, 192.615(a) (192.615(a)(6))
- Question Text *Does the emergency plan include procedures for the emergency shutdown or pressure reduction in any section of pipeline system necessary to minimize hazards to life or property?*
- Assets Covered 88991
- Result Notes Emergency Manual Appendix H Circumstances for a Shutdown or Pressure Reduction.
39. Question Result, ID, References Sat, EP.ERG.PUBLICHAZ.P, 192.605(a) (192.615(a)(7))
- Question Text *Does the emergency plan include procedures for making safe any actual or potential hazard to life or property?*
- Assets Covered 88991
- Result Notes Emergency Manual, Section 4.1 Response Objectives
40. Question Result, ID, References Sat, EP.ERG.AUTHORITIES.P, 192.615(a) (192.615(a)(8))
- Question Text *Does the emergency plan include procedures for notifying appropriate public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency?*
- Assets Covered 88991
- Result Notes Emergency Responders Handbook
41. Question Result, ID, References NA, EP.ERG.OUTAGERESTORE.P, 192.615(a) (192.615(a)(9))
- Question Text *Does the emergency plan include procedures for safely restoring any service outage?*
- Assets Covered 88991
- Result Notes No services on pipeline system.
42. Question Result, ID, References Sat, EP.ERG.INCIDENTACTIONS.P, 192.615(a) (192.615(a)(10))
- Question Text *Does the process include procedures for beginning action under 192.617, if applicable, as soon after the end of the emergency as possible?*
- Assets Covered 88991
- Result Notes Emergency Procedures Manual Section 5.1.1 Investigation

43. Question Result, ID, References **Sat, EP.ERG.INCIDENTANALYSIS.P, 192.617**
 Question Text *Does the process include procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of recurrence?*
 Assets Covered **88991**
 Result Notes **Emergency Procedures Manual Section 5 Investigation & Restoration**
44. Question Result, ID, References **Sat, EP.ERG.POSTEVNTREVIEW.P, 192.615(b)(3)**
 Question Text *Does the process include detailed steps for reviewing employee activities to determine whether the procedures were effectively followed in each emergency?*
 Assets Covered **88991**
 Result Notes **Emergency Procedures Manual Section 5.1.4(c)**
45. Question Result, ID, References **NA, EP.ERG.POSTEVNTREVIEW.R, 192.605(a) (192.615(b)(1), 192.615(b)(3))**
 Question Text *Do records indicate review of employee activities to determine whether the procedures were effectively followed in each emergency?*
 Assets Covered **88991**
 Result Notes **No pipeline incidents to date.**
46. Question Result, ID, References **Sat, EP.ERG.LIAISON.P, 192.615(c) (192.615(c)(1), 192.615(c)(2), 192.615(c)(3), 192.615(c)(4), 192.616(c), ADB-05-03)**
 Question Text *Does the process include steps for establishing and maintaining liaison with appropriate fire, police and other public officials and utility owners?*
 Assets Covered **88991**
 Result Notes **Emergency Procedures Manual Section 6 Emergency Service Liaison Program.**
47. Question Result, ID, References **Sat, EP.ERG.LIAISON.R, 192.605(a) (192.615(c)(1), 192.615(c)(2), 192.615(c)(3), 192.615(c)(4), 192.616(c), ADB-05-03) (also presented in: PD.PA)**
 Question Text *Do records indicate that liaison has been established and maintained with appropriate fire, police, public officials, and utility owners?*
 Assets Covered **88991**
 Result Notes **Reviewed annual liaison records for face to face contact with all appropriate fire, police, public officials, and utility owners for 2016-2018 inclusive.**

IM.CA: Continual Evaluation and Assessment

48. Question Result, ID, References **NA, IM.CA.REASSESSINTERVAL.R, 192.947(d) (192.937(a), 192.939(a), 192.939(b), 192.913(c))**
 Question Text *Do records demonstrate that reassessment intervals were established consistent with the requirements of the operator's processes?*
 Assets Covered **88991**
 Result Notes **No High Consequence Areas (HCA) on pipeline. No integrity Management Program required.**

IM.PM: Preventive and Mitigative Measures

49. Question Result, ID, References **NA, IM.PM.PMMGENERAL.R, 192.947(d) (192.935(a))**
 Question Text *Do records demonstrate that additional measures have 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?*
 Assets Covered **88991**
 Result Notes **No High Consequence Areas (HCA) on pipeline. No integrity Management Program required.**

MO.GOABNORMAL: Gas Pipeline Abnormal Operations

50. Question Result, ID, References **Sat, MO.GOABNORMAL.ABNORMAL.P, 192.605(a) (192.605(c)(1))**

Question Text *Does the process fully address the responsibilities during and after an abnormal operation?*

Assets Covered 88991

Result Notes O&M Manual Appendix F Abnormal Operating Procedure

51. Question Result, ID, References NA, MO.GOABNORMAL.ABNORMAL.R, 192.605(a) (192.605(c)(1))

Question Text *Did personnel respond to indications of abnormal operations as required by the process?*

Assets Covered 88991

Result Notes No abnormal operations to date.

52. Question Result, ID, References Sat, MO.GOABNORMAL.ABNORMALCHECK.P, 192.605(a) (192.605(c)(2))

Question Text *Does the process include requirements for checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation?*

Assets Covered 88991

Result Notes O&M Manual Section 8.5

53. Question Result, ID, References Sat, MO.GOABNORMAL.ABNORMALREVIEW.P, 192.605(a) (192.605(c)(4))

Question Text *Does the process include requirements for periodically reviewing the response of operator personnel to determine the effectiveness of the processes controlling abnormal operation and taking corrective action where deficiencies are found?*

Assets Covered 88991

Result Notes O&M Manual Appendix F Section 15

54. Question Result, ID, References NA, MO.GOABNORMAL.ABNORMALREVIEW.R, 192.605(a) (192.605(c)(4))

Question Text *Do records indicate periodic review of work done by operator personnel to determine the effectiveness of the abnormal operation processes and corrective action taken where deficiencies are found?*

Assets Covered 88991

Result Notes No Abnormal Operations on pipeline to date. O&M Manual Section 8.4.3 Personnel Review.

MO.GOCLASS: Gas Pipeline Class Location

55. Question Result, ID, References Sat, MO.GOCLASS.CLASSLOCATEREV.P, 192.605(b)(1) (192.611(a), 192.611(b), 192.611(c), 192.611(d))

Question Text *Does the process include a requirement that the MAOP of a pipeline segment be confirmed or revised within 24 months whenever the hoop stress corresponding to the established MAOP is determined not to be commensurate with the existing class location?*

Assets Covered 88991

Result Notes O&M Manual Section 3.5 Classification Surveys.

56. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.P, 192.605(e) (192.613(a), 192.613(b), 192.703(b), 192.703(c)) (also presented in: MO.GO)

Question Text *Are there processes for performing continuing surveillance of pipeline facilities, and also for reconditioning, phasing out, or reducing the MAOP in a pipeline segment that is determined to be in unsatisfactory condition but on which no immediate hazard exists?*

Assets Covered 88991

Result Notes Section 3.4 General Right-of Way Surveillance

57. Question Result, ID, References Sat, MO.GOCLASS.CLASSLOCATESTUDY.P, 192.605(b)(1) (192.609(a), 192.609(b), 192.609(c), 192.609(d), 192.609(e), 192.609(f))

Question Text *Does the process include a requirement that the operator conduct a study whenever an increase in population density indicates a change in the class location of a pipeline segment operating at a hoop stress that is more than 40% SMYS?*

Assets Covered 88991

Result Notes O&M Manual Section 3.5 Classification Surveys

58. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.R, 192.709(c) (192.613(a), 192.613(b), 192.703(b), 192.703(c)) (also presented in: MO.GO)

Question Text *Do records indicate performance of continuing surveillance of facilities as required, and also the reconditioning, phasing out, or MAOP reduction in any pipeline segment that was determined to be in unsatisfactory condition but on which no immediate hazard existed?*

Assets Covered 88991

Result Notes Reviewed surveillance patrols for 2016-2018 inclusive.

59. Question Result, ID, [Sat, MO.GO.CONTSURVEILLANCE.O, 192.613\(a\) \(192.613\(b\), 192.703\(a\), 192.703\(b\), 192.703\(c\)\)](#) (also References presented in: MO.GO)

Question Text *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?*

Assets Covered 88991

MO.GOMAOP: Gas Pipeline MAOP

60. Question Result, ID, [Sat, MO.GOMAOP.MAOPDETERMINE.P, 192.605\(b\)\(1\) \(192.619\(a\), 192.619\(b\)\)](#)
References

Question Text *Does the process include requirements for determining the maximum allowable operating pressure for a pipeline segment in accordance with 192.619?*

Assets Covered 88991

Result Notes O&M Manual Appendix D - Determination of MAOP

61. Question Result, ID, [Sat, MO.GOMAOP.MAOPLIMIT.P, 192.605\(a\) \(192.605\(b\)\(5\)\)](#)
References

Question Text *Does the process include requirements for starting up and shutting down any part of the pipeline in a manner to assure operation with the MAOP limits, plus the build-up allowed for operation of pressure-limiting and control devices?*

Assets Covered 88991

Result Notes O&M Manual Section 6.3 Pressurizing Facilities

62. Question Result, ID, [Sat, MO.GOMAOP.MAOPDETERMINE.R, 192.709\(c\) \(192.619\(a\), 192.619\(b\)\)](#)
References

Question Text *Do records indicate determination of the MAOP of pipeline segments in accordance with 192.619 and limiting of the operating pressure as required?*

Assets Covered 88991

Result Notes O&M Manual Appendix D - Determination of MAOP. - Reviewed calculations and test results.

MO.GM: Gas Pipeline Maintenance

63. Question Result, ID, [NA, MO.GM.RECORDS.R, 192.605\(b\)\(1\) \(192.243\(f\), 192.709\(a\), 192.709\(b\), 192.709\(c\)\)](#) (also References presented in: MO.GMOPP)

Question Text *Do records indicate that records are maintained of each pipe/"other than pipe" repair, NDT required record, and (as required by subparts L or M) patrol, survey, inspection or test?*

Assets Covered 88991

Result Notes No repairs or alterations to pipeline since construction in 2006.

64. Question Result, ID, [Sat, MO.GM.IGNITION.P, 192.605\(b\)\(1\) \(192.751\(a\), 192.751\(b\), 192.751\(c\)\)](#)
References

Question Text *Are there processes for minimizing the danger of accidental ignition where gas constitutes a hazard of fire or explosion?*

Assets Covered 88991

Result Notes O&M Manual Section 6.1 Prevention of Gas Ignition.

65. Question Result, ID, [Sat, MO.GM.RECORDS.P, 192.605\(b\)\(1\) \(192.709\(a\), 192.709\(b\), 192.709\(c\)\)](#) (also presented in: References MO.GMOPP)

Question Text *Does the process include a requirement that the operator maintain a record of each pipe/"other than pipe" repair, NDT required record, and (as required by subparts L or M) patrol, survey, inspection or test?*

Assets Covered 88991

Result Notes O&M Manual Section 1.11.3 Retention and Retrieval

66. Question Result, ID, [Sat, MO.GM.VALVEINSPECT.P, 192.605\(b\)\(1\) \(192.745\(a\), 192.745\(b\)\)](#)
References

Question Text *Are their processes for inspecting and partially operating each transmission line valve that might be required in an emergency at intervals not exceeding 15 months, but at least once each calendar year and for taking prompt remedial action to correct any valve found inoperable?*

Assets Covered 88991

Result Notes O&M Manual Section 3.9 Valve Inspection

67. Question Result, ID, References Sat, MO.GM.VALVEINSPECT.R, 192.709(c) (192.745(a), 192.745(b))

Question Text *Do records indicate proper inspection and partial operation of transmission line valves that may be required during an emergency as required and prompt remedial actions taken if necessary?*

Assets Covered 88991

Result Notes Reviewed records for 2016-2018 inclusive.

68. Question Result, ID, References Sat, MO.GM.VALVEINSPECT.O, 192.745(a) (192.745(b))

Question Text *Are field inspection and partial operation of transmission line valves adequate?*

Assets Covered 88991

Result Notes Transmission valves were exercised, no issues.

MO.GOODOR: Gas Pipeline Odorization

69. Question Result, ID, References Sat, MO.GOODOR.ODORIZE.P, 192.605(b)(1) (192.625(a), 192.625(b), 192.625(c), 192.625(d), 192.625(e), 192.625(f))

Question Text *Does the process ensure appropriate odorant levels are contained in its combustible gases in accordance with 192.625?*

Assets Covered 88991

Result Notes Operations & Maintenance(O&M) Manual Section 6.2 Gas Odorization

70. Question Result, ID, References Sat, MO.GOODOR.ODORIZE.R, 192.709(c) (192.625(a), 192.625(b), 192.625(c), 192.625(d), 192.625(e), 192.625(f))

Question Text *Do records indicate appropriate odorization of its combustible gases in accordance with its processes and conduct of the required testing to verify odorant levels met requirements?*

Assets Covered 88991

Result Notes Reviewed inspection results for odorant concentration for 2016-2018 inclusive

MO.GO: Gas Pipeline Operations

71. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.P, 192.605(e) (192.613(a), 192.613(b), 192.703(b), 192.703(c)) (also presented in: MO.GOCLASS)

Question Text *Are there processes for performing continuing surveillance of pipeline facilities, and also for reconditioning, phasing out, or reducing the MAOP in a pipeline segment that is determined to be in unsatisfactory condition but on which no immediate hazard exists?*

Assets Covered 88991

Result Notes Section 3.4 General Right-of Way Surveillance

72. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.R, 192.709(c) (192.613(a), 192.613(b), 192.703(b), 192.703(c)) (also presented in: MO.GOCLASS)

Question Text *Do records indicate performance of continuing surveillance of facilities as required, and also the reconditioning, phasing out, or MAOP reduction in any pipeline segment that was determined to be in unsatisfactory condition but on which no immediate hazard existed?*

Assets Covered 88991

Result Notes Reviewed surveillance patrols for 2016-2018 inclusive.

73. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.O, 192.613(a) (192.613(b), 192.703(a), 192.703(b), 192.703(c)) (also presented in: MO.GOCLASS)

Question Text *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?*

Assets Covered 88991

74. Question Result, ID, References Sat, MO.GO.PURGE.P, 192.605(b)(1) (192.629(a), 192.629(b))

Question Text *Does the process include requirements for purging of pipelines in accordance with 192.629?*

Assets Covered 88991

Result Notes O&M Manual Section 6.5 Purging Facilities

75. Question Result, ID, References Sat, MO.GO.OMANNUALREVIEW.P, 192.605(a)

Question Text *Does the process include a requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year?*

Assets Covered 88991

Result Notes O&M Manual Section 1.13 Procedure for Review and Revision

76. Question Result, ID, References Sat, MO.GO.OMANNUALREVIEW.R, 192.605(a)

Question Text *Has the operator conducted annual reviews of the written procedures or processes in the manual as required?*

Assets Covered 88991

Result Notes Reviewed annual review sign-off in front of manual for 2016-2018. No issues.

77. Question Result, ID, References Sat, MO.GO.OMEFFECTREVIEW.P, 192.605(a) (192.605(b)(8))

Question Text *Does the process include requirements for periodically reviewing the work done by operator personnel to determine the effectiveness, and adequacy of the processes used in normal operations and maintenance and modifying the processes when deficiencies are found?*

Assets Covered 88991

Result Notes O&M Manual Section 1.10 Personnel Review

78. Question Result, ID, References Sat, MO.GO.OMEFFECTREVIEW.R, 192.605(a) (192.605(b)(8))

Question Text *Do records indicate periodic review of the work done by operator personnel to determine the effectiveness, and adequacy of the processes used in normal operations and maintenance and modifying the processes when deficiencies are found?*

Assets Covered 88991

Result Notes Reviewed records for 2016(2), 2017(2), & 2018(3) for review of processes.

79. Question Result, ID, References Sat, MO.GO.OMHISTORY.P, 192.605(a) (192.605(b)(3))

Question Text *Does the process include requirements for making construction records, maps and operating history available to appropriate operating personnel?*

Assets Covered 88991

Result Notes O&M Manual Section 3.2.4 & 3.2.5 under Operating History Section 3.2

80. Question Result, ID, References Sat, MO.GO.OMHISTORY.R, 192.605(a) (192.605(b)(3))

Question Text *Are construction records, maps and operating history available to appropriate operating personnel?*

Assets Covered 88991

Result Notes Pipeline records are available to operating personnel.

81. Question Result, ID, References Sat, MO.GO.OMHISTORY.O, 192.605(b)(3)

Question Text *Are construction records, maps and operating history available to appropriate operating personnel?*

Assets Covered 88991

Result Notes Pipeline maps and documents are contained in Fireproof file cabinet in Cardinal Office.

82. Question Result, ID, References Sat, MO.GO.OMLOCATION.O, 192.605(a)

Question Text *Are appropriate parts of the manual kept at locations where operations and maintenance activities are conducted?*

Assets Covered 88991

83. Question Result, ID, References Sat, MO.GO.SRC.P, 192.605(a) (192.605(d), 191.23(a))

Question Text *Does the process include instructions enabling personnel who perform operation and maintenance activities to recognize conditions that may potentially be safety-related conditions?*

Assets Covered 88991

Result Notes O&M procedure P-5, Recognizing and Reporting Safety Related Conditions

84. Question Result, ID, References Sat, MO.GO.ODDOR.P, 192.605(a) (192.605(b)(11))

Question Text *Does the process require prompt response to the report of a gas odor inside or near a building?*

Assets Covered 88991

Result Notes O&M Manual Section 3.7 Grade 1 leak (b)(iv)

MO.GMOPP: Gas Pipeline Overpressure Protection

85. Question Result, ID, References NA, MO.GMOPP.PRESSREGCAP.P, 192.605(b)(1) (192.743(a), 192.743(b), 192.743(c))

Question Text *Does the process include procedures for ensuring that the capacity of each pressure relief device at pressure limiting stations and pressure regulating stations is sufficient?*

Assets Covered 88991

Result Notes Cardinal pipeline does not require overpressure protection because the maximum gas supply pressure from Williams is MAOP of 890 psig. Pipeline for cardinal was tested for an MAOP of 1000 psi.

86. Question Result, ID, References NA, MO.GMOPP.PRESSREGCAP.R, 192.709(c) (192.743(a), 192.743(b), 192.743(c))

Question Text *Do records indicate testing or review of the capacity of each pressure relief device at each pressure limiting station and pressure regulating station as required?*

Assets Covered 88991

Result Notes Cardinal pipeline does not require overpressure protection because the maximum gas supply pressure from Williams is MAOP of 890 psig. Pipeline for cardinal was tested for an MAOP of 1000 psi.

87. Question Result, ID, References NA, MO.GM.RECORDS.R, 192.605(b)(1) (192.243(f), 192.709(a), 192.709(b), 192.709(c)) (also presented in: MO.GM)

Question Text *Do records indicate that records are maintained of each pipe/"other than pipe" repair, NDT required record, and (as required by subparts L or M) patrol, survey, inspection or test?*

Assets Covered 88991

Result Notes No repairs or alterations to pipeline since construction in 2006.

88. Question Result, ID, References NA, MO.GMOPP.PRESSREGTEST.P, 192.605(b)(1) (192.739(a), 192.739(b))

Question Text *Does the process include procedures for inspecting and testing each pressure limiting station, relief device, and pressure regulating station and their equipment?*

Assets Covered 88991

Result Notes Cardinal pipeline does not require overpressure protection because the maximum gas supply pressure from Williams is MAOP of 890 psig. Pipeline for cardinal was tested for an MAOP of 1000 psi.

89. Question Result, ID, References NA, MO.GMOPP.PRESSREGTEST.R, 192.709(c) (192.739(a), 192.739(b))

Question Text *Do records indicate inspection and testing of pressure limiting, relief devices, and pressure regulating stations?*

Assets Covered 88991

Result Notes Cardinal pipeline does not require overpressure protection because the maximum gas supply pressure from Williams is MAOP of 890 psig. Pipeline for cardinal was tested for an MAOP of 1000 psi.

90. Question Result, ID, References NA, MO.GMOPP.PRESSREGTEST.O, 192.739(a) (192.739(b), 192.743)

Question Text *Are field or bench tests or inspections of regulating stations, pressure limiting stations or relief devices adequate?*

Assets Covered 88991

Result Notes No transmission line valves or relief devices required for system protection. Input pressure will not exceed 890 PSIG as this is Williams pipe MAOP. MAOP of Cardinal pipeline is 1000 PSIG.

91. Question Result, ID, References Sat, MO.GM.RECORDS.P, 192.605(b)(1) (192.709(a), 192.709(b), 192.709(c)) (also presented in: MO.GM)

Question Text *Does the process include a requirement that the operator maintain a record of each pipe/"other than pipe" repair, NDT required record, and (as required by subparts L or M) patrol, survey, inspection or test?*

Assets Covered 88991

Result Notes O&M Manual Section 1.11.3 Retention and Retrieval

MO.RW: ROW Markers, Patrols, Leakage Survey and Monitoring

92. Question Result, ID, References Sat, MO.RW.PATROL.R, 192.709(c) (192.705(a), 192.705(b), 192.705(c)) (also presented in: PD.RW)

Question Text *Do records indicate that ROW surface conditions have been patrolled as required?*

Assets Covered 88991

Result Notes Reviewed records for 2016-2018.

93. Question Result, ID, References Sat, MO.RW.ROWMARKER.O, 192.707(a) (192.707(b), 192.707(c), 192.707(d)) (also presented in: PD.RW)

Question Text *Are line markers placed and maintained as required?*

Assets Covered 88991

Result Notes Line markers, patrols and Leakage Survey appear to be adequate.

94. Question Result, ID, References Sat, MO.RW.ROWCONDITION.O, 192.705(a) (192.705(c)) (also presented in: PD.RW)

Question Text *Are the ROW conditions acceptable for the type of patrolling used?*

Assets Covered 88991

Result Notes Operator does walking survey four times per year.

95. Question Result, ID, References Sat, MO.RW.ROWMARKER.P, 192.707(a) (192.707(b), 192.707(c), 192.707(d)) (also presented in: PD.RW)

Question Text *Does the process adequately cover the requirements for placement of ROW markers?*

Assets Covered 88991

Result Notes O&M Manual Section 5.5 Pipeline Signage

96. Question Result, ID, References Sat, MO.RW.LEAKAGE.P, 192.706 (192.706(a), 192.706(b), 192.935(d))

Question Text *Does the process require leakage surveys to be conducted?*

Assets Covered 88991

Result Notes O&M Manual Section 3.8 Leakage Surveys & Investigations

97. Question Result, ID, References Sat, MO.RW.LEAKAGE.R, 192.709(c) (192.706, 192.706(a), 192.706(b), 192.935(d))

Question Text *Do records indicate leakage surveys conducted as required?*

Assets Covered 88991

Result Notes Reviewed records for 2016-2018.

PD.DP: Damage Prevention

98. Question Result, ID, References Sat, PD.DP.PDPROGRAM.P, 192.614(a)

Question Text *Is a damage prevention program approved and in place?*

Assets Covered 88991

Result Notes O&M Manual Section 5 Damage Prevention Program

99. Question Result, ID, References Sat, PD.DP.ONECALL.P, 192.614(b)

Question Text *Does the process require participation in qualified one-call systems?*

Assets Covered 88991

Result Notes O&M Manual Section 5.2.1

100. Question Result, ID, References Sat, PD.DP.EXCAVATEMARK.P, 192.614(c)(5)

Question Text *Does the process require marking proposed excavation sites to CGA Best Practices or use more stringent and accurate requirements?*

Assets Covered 88991

Result Notes O&M Manual Procedure P-2 Pipeline Excavation

101. Question Result, ID, References Sat, PD.DP.TPD.P, 192.614(c)(1)

Question Text *Does the process specify how reports of Third Party Activity and names of associated contractors or excavators are input back into the mail-outs and communications with excavators along the system?*

Assets Covered 88991

Result Notes Public Awareness Manual Section 9 Program Evaluation, & Section 12 Continuous Improvement

102. Question Result, ID, References Sat, PD.DP.TPDONECALL.P, 192.614(c)(3)

Question Text *Does the process specify how reports of TPD are checked against One-Call tickets?*

Assets Covered 88991

Result Notes O&M Manual Section 5.2.2(e)

103. Question Result, ID, References Sat, PD.DP.PDPROGRAM.R, 192.614(c)

Question Text *Does the damage prevention program meet minimum requirements specified in 192.614(c)?*

Assets Covered 88991

Result Notes Reviewed O&M Manual Section 5.2.2

104. Question Result, ID, References Sat, PD.DP.DPINFOGATHER.P, 192.917(b) (192.935(b)(1)(ii))

Question Text *Does the process require critical damage prevention information be gathered and recorded during pipeline patrols, leak surveys, and integrity assessments?*

Assets Covered 88991

Result Notes Public Awareness Plan Section 9 Supplemental Programs

105. Question Result, ID, References Sat, PD.DP.DPINFOGATHER.R, 192.947(b) (192.917(b), 192.935(b)(1)(ii))

Question Text *Do records demonstrate that critical damage prevention information is being gathered and recorded during pipeline patrols, leakage surveys, and integrity assessments?*

Assets Covered 88991

Result Notes Reviewed DP information for patrols and leakage surveys.

PD.PA: Public Awareness

106. Question Result, ID, References Sat, PD.PA.PROGRAM.P, 192.616(a) (192.616(h))

Question Text *Has the continuing public education (awareness) program been established as required?*

Assets Covered 88991

Result Notes Public Awareness program was Issued on May 14, 2011.

107. Question Result, ID, References Sat, PD.PA.AUDIENCEID.R, 192.616(d) (192.616(e), 192.616(f), API RP 1162 Section 2.2, API RP 1162 Section 3)

Question Text *Do records identify the individual stakeholders in the four affected stakeholder audience groups: (1) affected public, (2) emergency officials, (3) local public officials, and (4) excavators, as well as affected municipalities, school districts, businesses, and residents to which it sends public awareness materials and messages?*

Assets Covered 88991

Result Notes Public Awareness program Section V Stakeholder Audiences

108. Question Result, ID, References Sat, PD.PA.MESSAGES.P, 192.616(c) (API RP 1162 Section 3, API RP 1162 Section 4, API RP 1162 Section 5)

Question Text *Does the program define the combination of messages, delivery methods, and delivery frequencies to comprehensively reach all affected stakeholder audiences in all areas where gas is transported?*

Assets Covered 88991

Result Notes Public Awareness program Section VIII. Delivery Methods and Media

109. Question Result, ID, References **Sat, PD.PA.EDUCATE.R, 192.616(d) (192.616(f))**
 Question Text *Did delivered messages specifically include provisions to educate the public, emergency officials, local public officials, and excavators on: (1) Use of a one-call notification system prior to excavation and other damage prevention activities; (2) Possible hazards associated with unintended releases from a gas pipeline facility; (3) Physical indications of a possible release; (4) Steps to be taken for public safety in the event of a gas pipeline release; and (5) Procedures to report such an event?*
 Assets Covered **88991**
 Result Notes **Cardinal Glass uses a Letter to address all requirements listed in 49 CFR 192.616(d) as required.**
110. Question Result, ID, References **Sat, PD.PA.LOCATIONMESSAGE.R, 192.616(e) (192.616(f))**
 Question Text *Were messages developed and delivered to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations?*
 Assets Covered **88991**
 Result Notes **Cardinal Glass uses a Letter to address all requirements listed in 49 CFR 192.616(d) as required.**
111. Question Result, ID, References **Sat, PD.PA.MESSAGEFREQUENCY.R, 192.616(c) (API RP 1162 Table 2-1, API RP 1162 Table 2-2, API RP 1162 Table 2-3)**
 Question Text *Did the delivery of materials and messages meet or exceed the baseline delivery frequencies specified in API RP 1162, Table 2-1 through Table 2.3?*
 Assets Covered **88991**
 Result Notes **Cardinal Glass sends pipeline information letters to Stakeholder Audiences**
112. Question Result, ID, References **Sat, EP.ERG.LIAISON.R, 192.605(a) (192.615(c)(1), 192.615(c)(2), 192.615(c)(3), 192.615(c)(4), 192.616(c), ADB-05-03) (also presented in: EP.ERG)**
 Question Text *Do records indicate that liaison has been established and maintained with appropriate fire, police, public officials, and utility owners?*
 Assets Covered **88991**
 Result Notes **Reviewed annual liaison records for face to face contact with all appropriate fire, police, public officials, and utility owners for 2016-2018 inclusive.**
113. Question Result, ID, References **Sat, PD.PA.LANGUAGE.R, 192.616(g) (API RP 1162 Section 2.3.1)**
 Question Text *Were materials and messages developed and delivered in other languages commonly understood by a significant number and concentration of non-English speaking populations in the operator's areas?*
 Assets Covered **88991**
 Result Notes **Public Awareness Program Section I. Program Objectives, Subsection Public Awareness**
114. Question Result, ID, References **Sat, PD.PA.EVALPLAN.P, 192.616(i) (192.616(c), API RP 1162 Section 8, API RP 1162 Appendix E)**
 Question Text *Does the program include a process that specifies how program implementation and effectiveness will be periodically evaluated?*
 Assets Covered **88991**
 Result Notes **Pubic Awareness program Section XI. Program Evaluation, Subsection Elements of Evaluation.**

PD.RW: ROW Markers, Patrols, Monitoring

115. Question Result, ID, References **Sat, MO.RW.PATROL.R, 192.709(c) (192.705(a), 192.705(b), 192.705(c)) (also presented in: MO.RW)**
 Question Text *Do records indicate that ROW surface conditions have been patrolled as required?*
 Assets Covered **88991**
 Result Notes **Reviewed records for 2016-2018.**
116. Question Result, ID, References **Sat, MO.RW.ROWMARKER.O, 192.707(a) (192.707(b), 192.707(c), 192.707(d)) (also presented in: MO.RW)**
 Question Text *Are line markers placed and maintained as required?*
 Assets Covered **88991**
 Result Notes **Line markers, patrols and Leakage Survey appear to be adequate.**
117. Question Result, ID, References **Sat, MO.RW.ROWCONDITION.O, 192.705(a) (192.705(c)) (also presented in: MO.RW)**

Question Text *Are the ROW conditions acceptable for the type of patrolling used?*

Assets Covered 88991

Result Notes Operator does walking survey four times per year.

118. Question Result, ID, Sat, MO.RW.ROWMARKER.P, 192.707(a) (192.707(b), 192.707(c), 192.707(d)) (also presented in: References MO.RW)

Question Text *Does the process adequately cover the requirements for placement of ROW markers?*

Assets Covered 88991

Result Notes O&M Manual Section 5.5 Pipeline Signage

RPT.RR: Regulatory Reporting (Traditional)

119. Question Result, ID, Sat, RPT.RR.ANNUALREPORT.R, 191.17(a)
References

Question Text *Have complete and accurate Annual Reports been submitted?*

Assets Covered 88991

Result Notes Annual reports appear adequate.

120. Question Result, ID, Sat, RPT.RR.IMMEDREPORT.P, 191.5(b) (191.7)
References

Question Text *Is there a process to immediately report incidents to the National Response Center?*

Assets Covered 88991

Result Notes O&M Manual Section 9.1.3 PHMSA Reportable Incidents

121. Question Result, ID, NA, RPT.RR.IMMEDREPORT.R, 191.5(a) (191.7(a))
References

Question Text *Do records indicate immediate notifications of incidents were made in accordance with 191.5?*

Assets Covered 88991

Result Notes No such event occurred, or condition existed, in the scope of inspection review.

122. Question Result, ID, NA, RPT.RR.INCIDENTREPORTSUPP.R, 191.15(d)
References

Question Text *Do records indicate accurate supplemental incident reports were filed and within the required timeframe?*

Assets Covered 88991

Result Notes No such event occurred, or condition existed, in the scope of inspection review.

123. Question Result, ID, NA, RPT.RR.INCIDENTREPORT.R, 191.15(a)
References

Question Text *Do records indicate reportable incidents were identified and reports were submitted to DOT on Form 7100.2 within the required timeframe?*

Assets Covered 88991

Result Notes No such event occurred, or condition existed, in the scope of inspection review.

124. Question Result, ID, Sat, RPT.RR.INCIDENTREPORT.P, 191.15(a)
References

Question Text *Does the process require preparation and filing of an incident report as soon as practicable but no later than 30 days after discovery of a reportable incident?*

Assets Covered 88991

Result Notes O&M Manual Section 9.1.4 Reportable Incidents Follow-Up Reports

125. Question Result, ID, Sat, RPT.RR.INCIDENTREPORTSUPP.P, 191.15(d)
References

Question Text *Does the process require preparation and filing of supplemental incident reports?*

Assets Covered 88991

Result Notes O&M Manual Section 9.1.4 Reportable Incidents Follow-Up Reports

126. Question Result, ID, Sat, RPT.RR.SRCR.P, 192.605(a) (191.23(a), 191.23(b), 191.25(a), 191.25(b))
References

Question Text *Do processes require reporting of safety-related conditions?*

Assets Covered 88991

Result Notes O&M Manual Section 9.1.2 PHMSA Reporting of Safety Related Conditions

127. Question Result, ID, References NA, RPT.RR.SRCR.R, 191.23(a) (191.23(b), 191.25(a), 191.25(b))
Question Text *Do records indicate safety-related condition reports were filed as required?*
Assets Covered 88991
Result Notes No such event occurred, or condition existed, in the scope of inspection review.
128. Question Result, ID, References Sat, RPT.RR.NPMSANNUAL.R, 191.29(a) (191.29(b))
Question Text *Do records indicate NPMS submissions were completed each year, on or before March 15, representing all in service, idle and retired assets as of December 31 of the previous year (excludes distribution lines and gathering lines) occurred, and that if no modifications occurred, an email was submitted stating that fact?*
Assets Covered 88991
Result Notes Reviewed the annual submittal for 2016-2018 inclusive.
129. Question Result, ID, References Sat, RPT.RR.OPID.R, 191.22(a) (191.22(c), 191.22(d))
Question Text *Do records indicate appropriate obtaining, and control of, Operator Identification Numbers (OPIDs), including changes in entity, acquisition/divestiture, and construction/update/uprate?*
Assets Covered 88991
Result Notes No changes to OPID for Cardinal Glass to date.

TD.ATM: Atmospheric Corrosion

130. Question Result, ID, References Sat, TD.ATM.ATMCORRODE.P, 192.605(b)(2) (192.479(a), 192.479(b), 192.479(c))
Question Text *Does the process give adequate guidance identifying atmospheric corrosion and for protecting above ground pipe from atmospheric corrosion?*
Assets Covered 88991
Result Notes O&M Manual Section 4.6 Atmospheric Corrosion Control
131. Question Result, ID, References Sat, TD.ATM.ATMCORRODEINSP.O, 192.481(b) (192.481(c), 192.479(a), 192.479(b), 192.479(c))
Question Text *Is pipe that is exposed to atmospheric corrosion protected?*
Assets Covered 88991
Result Notes Atmospheric Corrosion protection appears adequate.
132. Question Result, ID, References Sat, TD.ATM.ATMCORRODEINSP.P, 192.605(b)(2) (192.481(a), 192.481(b), 192.481(c))
Question Text *Does the process give adequate instruction for the inspection of aboveground pipeline segments for atmospheric corrosion?*
Assets Covered 88991
Result Notes O&M Manual Section 4.6 Atmospheric Corrosion Control
133. Question Result, ID, References Sat, TD.ATM.ATMCORRODEINSP.R, 192.491(c) (192.481(a), 192.481(b), 192.481(c))
Question Text *Do records document inspection of aboveground pipe for atmospheric corrosion?*
Assets Covered 88991
Result Notes Reviewed record for 2016-2018 inclusive

TD.CPMONITOR: External Corrosion - CP Monitoring

134. Question Result, ID, References Sat, TD.CPMONITOR.MONITORCRITERIA.P, 192.605(b)(2) (192.463(a), 192.463(c))
Question Text *Does the process require CP monitoring criteria to be used that is acceptable?*
Assets Covered 88991
Result Notes O&M Manual Section 4.1 Scope
135. Question Result, ID, References NA, TD.CPMONITOR.CURRENTTEST.R, 192.491(c) (192.465(b))

Question Text *Do records document details of electrical checks of sources of rectifiers or other impressed current sources?*

Assets Covered 88991

Result Notes No impressed current for this pipeline.

136. Question Result, ID, References Sat, TD.CPMONITOR.MONITORCRITERIA.O, 192.465(a)

Question Text *Are methods used for taking CP monitoring readings that allow for the application of appropriate CP monitoring criteria?*

Assets Covered 88991

Result Notes Observed Eric Larson monitoring CP protection for pipeline.

137. Question Result, ID, References Sat, TD.CPMONITOR.TEST.P, 192.605(b)(2) (192.465(a))

Question Text *Does the process adequately describe how to monitor CP that has been applied to pipelines?*

Assets Covered 88991

Result Notes O&M Manual Section 4.4.2 Monitoring Requirement

138. Question Result, ID, References Sat, TD.CPMONITOR.TEST.R, 192.491(c) (192.465(a))

Question Text *Do records adequately document cathodic protection monitoring tests have occurred as required?*

Assets Covered 88991

Result Notes Reviewed annual CP records for 2016-2018 inclusive. No issues.

139. Question Result, ID, References NA, TD.CPMONITOR.CURRENTTEST.P, 192.605(b)(2) (192.465(b))

Question Text *Does the process give sufficient details for making electrical checks of rectifiers or impressed current sources?*

Assets Covered 88991

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

140. Question Result, ID, References NA, TD.CPMONITOR.CURRENTTEST.O, 192.465(b)

Question Text *Are impressed current sources properly maintained and are they functioning properly?*

Assets Covered 88991

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

141. Question Result, ID, References NA, TD.CPMONITOR.REVCURRENTTEST.P, 192.605(b)(2) (192.465(c))

Question Text *Does the process give sufficient details for making electrical checks of interference bonds, diodes, and reverse current switches?*

Assets Covered 88991

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

142. Question Result, ID, References NA, TD.CPMONITOR.REVCURRENTTEST.R, 192.491(c) (192.465(c))

Question Text *Do records document details of electrical checks interference bonds, diodes, and reverse current switches?*

Assets Covered 88991

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

143. Question Result, ID, References Sat, TD.CPMONITOR.DEFICIENCY.P, 192.605(b)(2) (192.465(d))

Question Text *Does the process require that the operator promptly correct any identified deficiencies in corrosion control?*

Assets Covered 88991

Result Notes O&M Manual Section 4.8 Corrosion Remedial Measures

144. Question Result, ID, References NA, TD.CPMONITOR.DEFICIENCY.R, 192.491(c) (192.465(d))

Question Text *Do records adequately document actions taken to correct any identified deficiencies in corrosion control?*

Assets Covered 88991

Result Notes No deficiencies identified on pipeline to date.

145. Question Result, ID, References Sat, TD.CP.MONITOR.TESTLEAD.P, 192.605(b)(2) (192.471(a), 192.471(b), 192.471(c))
Question Text *Does the process provide adequate instructions for the installation of test leads?*
Assets Covered 88991
Result Notes O&M Manual Section 4.4.3 Test Stations and Test Leads
146. Question Result, ID, References Sat, TD.CP.MONITOR.TESTLEAD.O, 192.471(a) (192.471(b), 192.471(c))
Question Text *Do pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart I?*
Assets Covered 88991
Result Notes Electrical test leads are installed as required.
147. Question Result, ID, References Sat, TD.CP.MONITOR.INTFRCURRENT.P, 192.605(b)(2) (192.473(a))
Question Text *Does the operator have a program in place to minimize detrimental effects of interference currents on its pipeline system and does the process for designing and installing cathodic protection systems provide for the minimization of detrimental effects of interference currents on existing adjacent metallic structures?*
Assets Covered 88991
Result Notes O&M Manual Section 4.5.3 Interference Currents
148. Question Result, ID, References NA, TD.CP.MONITOR.INTFRCURRENT.R, 192.491(c) (192.473(a))
Question Text *Do records document an effective program is in place to minimize detrimental effects of interference currents and that detrimental effects of interference currents from CP systems on other underground metallic structures are minimized?*
Assets Covered 88991
Result Notes No detected interference current on pipeline to date.
149. Question Result, ID, References Sat, TD.CP.MONITOR.INTFRCURRENT.O, 192.473(a)
Question Text *Are areas of potential stray current identified, and if found, the detrimental effects of stray currents minimized?*
Assets Covered 88991
Result Notes No areas of stray current identified for this pipeline.
150. Question Result, ID, References Sat, TD.CP.RECORDS.P, 192.605(b)(2) (192.491(a), 192.491(b), 192.491(c)) (also presented in: TD.CP, TD.CPEXPOSED)
Question Text *Does the process include records requirements for the corrosion control activities listed in 192.491?*
Assets Covered 88991
Result Notes O&M Manual Section 4.10 Record Retention
151. Question Result, ID, References Sat, TD.CP.RECORDS.R, 192.491(a) (also presented in: TD.CP, TD.CPEXPOSED)
Question Text *Do records indicate the location of all items listed in 192.491(a)?*
Assets Covered 88991
Result Notes Reviewed records that includes pipeline CP test points and Lat / Long

TD.CP: External Corrosion - Cathodic Protection

152. Question Result, ID, References Sat, TD.CP.POST1971.P, 192.605(b)(2) (192.455(a), 192.457(a), 192.452(a), 192.452(b))
Question Text *Does the process require that each buried or submerged pipeline installed after July 31, 1971, be protected against external corrosion with a cathodic protection system within 1 year after completion of construction, conversion to service, or becoming jurisdictional onshore gathering?*
Assets Covered 88991
Result Notes O&M Manual Section 4.4.1 Cathodic Protection
153. Question Result, ID, References Sat, TD.CP.POST1971.R, 192.491(c) (192.455(a), 192.457(a), 192.452(a), 192.452(b))

Question Text *Do records document that each buried or submerged pipeline installed after July 31, 1971, has been protected against external corrosion with a cathodic protection system within 1 year after completion of construction, conversion to service, or becoming jurisdictional onshore gathering?*

Assets Covered 88991

Result Notes August 30, 2006 initial readings of CP system.

154. Question Result, ID, References Sat, TD.CP.ELECIISOLATE.P, 192.605(b)(2) (192.467(a), 192.467(b), 192.467(c), 192.467(d), 192.467(e))

Question Text *Does the process give adequate guidance for electrically isolating each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?*

Assets Covered 88991

Result Notes O&M Manual Section 4.5 Electric Isolation

155. Question Result, ID, References Sat, TD.CP.ELECIISOLATE.R, 192.491(c) (192.467(a), 192.467(b), 192.467(c), 192.467(d), 192.467(e))

Question Text *Do records adequately document electrical isolation of each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?*

Assets Covered 88991

Result Notes Reviewed Electrical Isolation records for 2016-2018. No issues.

156. Question Result, ID, References Sat, TD.CP.ELECIISOLATE.O, 192.467(a) (192.467(b), 192.467(c), 192.467(d), 192.467(e))

Question Text *Are measures performed to ensure electrical isolation of each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?*

Assets Covered 88991

Result Notes Observed electrical isolation testing by Eric Larson during field portion.

157. Question Result, ID, References Sat, TD.CP.RECORDS.P, 192.605(b)(2) (192.491(a), 192.491(b), 192.491(c)) (also presented in: TD.CP.MONITOR, TD.CP.EXPOSED)

Question Text *Does the process include records requirements for the corrosion control activities listed in 192.491?*

Assets Covered 88991

Result Notes O&M Manual Section 4.10 Record Retention

158. Question Result, ID, References Sat, TD.CP.RECORDS.R, 192.491(a) (also presented in: TD.CP.MONITOR, TD.CP.EXPOSED)

Question Text *Do records indicate the location of all items listed in 192.491(a)?*

Assets Covered 88991

Result Notes Reviewed records that includes pipeline CP test points and Lat / Long

TD.COAT: External Corrosion - Coatings

159. Question Result, ID, References Sat, TD.COAT.NEWPIPE.P, 192.605(b)(2) (192.455(a)(1), 192.461(a), 192.461(b), 192.483(a))

Question Text *Does the process require that each buried or submerged pipeline installed after July 31, 1971 be externally coated with a material that is adequate for underground service on a cathodically protected pipeline?*

Assets Covered 88991

Result Notes O&M Manual Section 4.1.1 Cathodic Protection

160. Question Result, ID, References Sat, TD.COAT.NEWPIPE.R, 192.491(c) (192.455(a)(1), 192.461(a), 192.461(b), 192.483(a))

Question Text *Do records document that each buried or submerged pipeline installed after July 31, 1971 has been externally coated with a suitable coating material?*

Assets Covered 88991

Result Notes Refer to NW Corrosion Engineering report 10/08/2010.

TD.CPEXPOSED: External Corrosion - Exposed Pipe

161. Question Result, ID, References **Sat, TD.CPEXPOSED.EXPOSEINSPECT.P, 192.605(b)(2) (192.459)**
 Question Text *Does the process require that exposed portions of buried pipeline be examined for external corrosion and coating deterioration, and if external corrosion is found, further examination is required to determine the extent of the corrosion?*
 Assets Covered **88991**
 Result Notes **O&M Manual Section 4.2 Examination of Exposed Pipe and Procedure P-4 Above Ground Pipe Coatings.**
162. Question Result, ID, References **Sat, TD.CPEXPOSED.EXPOSEINSPECT.R, 192.491(c) (192.459)**
 Question Text *Do records adequately document that exposed buried piping was examined for corrosion and deteriorated coating?*
 Assets Covered **88991**
 Result Notes **Reviewed exposed pipe reports for 9/18/07. Operator installed additional anodes.**
163. Question Result, ID, References **Sat, TD.CP.RECORDS.P, 192.605(b)(2) (192.491(a), 192.491(b), 192.491(c))** (also presented in: TD.CPMONITOR, TD.CP)
 Question Text *Does the process include records requirements for the corrosion control activities listed in 192.491?*
 Assets Covered **88991**
 Result Notes **O&M Manual Section 4.10 Record Retention**
164. Question Result, ID, References **Sat, TD.CP.RECORDS.R, 192.491(a)** (also presented in: TD.CPMONITOR, TD.CP)
 Question Text *Do records indicate the location of all items listed in 192.491(a)?*
 Assets Covered **88991**
 Result Notes **Reviewed records that includes pipeline CP test points and Lat / Long**

TD.ICP: Internal Corrosion - Preventive Measures

165. Question Result, ID, References **Sat, TD.ICP.EXAMINE.P, 192.605(b)(2) (192.475(a), 192.475(b))**
 Question Text *Does the process direct personnel to examine removed pipe for evidence of internal corrosion?*
 Assets Covered **88991**
 Result Notes **O&M Manual Section 4.7.2 Internal Corrosion Control**
166. Question Result, ID, References **NA, TD.ICP.EXAMINE.R, 192.491(c) (192.475(a), 192.475(b))**
 Question Text *Do records document examination of removed pipe for evidence of internal corrosion?*
 Assets Covered **88991**
 Result Notes **No such event occurred, or condition existed, in the scope of inspection review.**
167. Question Result, ID, References **Sat, TD.ICP.EVALUATE.P, 192.605(b)(2) (192.485(c))**
 Question Text *Does the process give sufficient guidance for personnel to evaluate the remaining strength of pipe that has been internally corroded?*
 Assets Covered **88991**
 Result Notes **O&M Manual Section 4.8 Corrosion Remedial Measures**
168. Question Result, ID, References **NA, TD.ICP.EVALUATE.R, 192.491(c) (192.485(c))**
 Question Text *Do records document adequate evaluation of internally corroded pipe?*
 Assets Covered **88991**
 Result Notes **No such event occurred, or condition existed, in the scope of inspection review.**
169. Question Result, ID, References **NA, TD.ICP.REPAIR.R, 192.485(a) (192.485(b))**
 Question Text *Do records document the repair or replacement of pipe that has been internally corroded to an extent that there is not sufficient remaining strength in the pipe wall?*
 Assets Covered **88991**
 Result Notes **No such event occurred, or condition existed, in the scope of inspection review.**

TD.ICCG: Internal Corrosion - Corrosive Gas

170. Question Result, ID, References **Sat, TD.ICCG.CORRGAS.P, 192.605(b)(2) (192.475(a))**
Question Text *Does the process require that the corrosive effect of the gas in the pipeline be investigated and if determined to be corrosive, steps be taken to minimize internal corrosion?*
Assets Covered **88991**
Result Notes **O&M Manual 4.7.1 Monitoring Requirement**
171. Question Result, ID, References **NA, TD.ICCG.CORRGAS.R, 192.491(c) (192.475(a))**
Question Text *Do the records demonstrate that the corrosive effect of the gas in the pipeline has been investigated and if determined to be corrosive, steps be taken to minimize internal corrosion?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection.**
172. Question Result, ID, References **NA, TD.ICCG.CORRGASACTION.P, 192.605(b)(2) (192.477)**
Question Text *Does the process give adequate direction for actions to be taken if corrosive gas is being transported by pipeline?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection. Cardinal does not transport corrosive gas.**
173. Question Result, ID, References **NA, TD.ICCG.CORRGASACTION.R, 192.491(c) (192.477)**
Question Text *Do records document the actions taken when corrosive gas is being transported by pipeline?*
Assets Covered **88991**
Result Notes **No such activity/condition was observed during the inspection. Cardinal does not transport corrosive gas.**

TQ.OQ: Operator Qualification

174. Question Result, ID, References **Sat, TQ.OQ.OQCONTRACTOR.R, 192.807(a) (192.807(b))**
Question Text *Are adequate records containing the required elements maintained for contractor personnel?*
Assets Covered **88991**
Result Notes **Reviewed records for operator personnel for OQ tasks.**
175. Question Result, ID, References **Sat, TQ.OQ.RECORDS.R, 192.807**
Question Text *Do records document the evaluation and qualifications of individuals performing covered tasks, and can the qualification of individuals performing covered tasks be verified?*
Assets Covered **88991**
Result Notes **Reviewed OQ records of operators personnel. No issues.**

TQ.QU: Qualification of Personnel - Specific Requirements

176. Question Result, ID, References **Sat, TQ.QU.CORROSION.P, 192.453 (192.805(b))**
Question Text *Does the process require corrosion control processes to be carried out by, or under the direction of, qualified personnel?*
Assets Covered **88991**
Result Notes **O&M Manual Section 4.1 Scope (Corrosion Control)**
177. Question Result, ID, References **Sat, TQ.QU.CORROSION.R, 192.453 (192.807(a), 192.807(b))**
Question Text *Do records indicate qualification of personnel implementing pipeline corrosion control methods?*
Assets Covered **88991**
Result Notes **Reviewed NACE qualifications of Jeremy Hailey. No issues.**
178. Question Result, ID, References **Sat, TQ.QU.HOTTAQUAL.P, 192.627 (192.805(b))**

Question Text *Does the process require taps on a pipeline under pressure (hot taps) to be performed by qualified personnel?*

Assets Covered 88991

Result Notes O&M Manual Section 6.6 Tapping Pipeline Under Pressure.

TQ.QUOMCONST: Qualification of Personnel - Specific Requirements (O and M Construction)

179. Question Result, ID, References NA, TQ.QUOMCONST.NDT.R, 192.243(b)(2) (192.807(a), 192.807(b), 192.328(a), 192.328(b))

Question Text *Do records indicate the qualification of nondestructive testing personnel?*

Assets Covered 88991

Result Notes No such activity/condition was observed during the inspection. No construction during inspection.

180. Question Result, ID, References NA, TQ.QUOMCONST.WELDER.R, 192.227(a) (192.227(b), 192.229(a), 192.229(b), 192.229(c), 192.229(d), 192.328(a), 192.328(b), 192.807(a), 192.807(b))

Question Text *Do records indicate that welders are adequately qualified?*

Assets Covered 88991

Result Notes No such activity/condition was observed during the inspection. No construction during inspection.

181. Question Result, ID, References Sat, TQ.QUOMCONST.WELDER.P, 192.227(a) (192.225(a), 192.225(b), 192.328(a), 192.328(b), 192.805(b))

Question Text *Does the process require welders to be qualified in accordance with API 1104 or the ASME Boiler & Pressure Vessel Code?*

Assets Covered 88991

Result Notes O&M Manual Section 11.5.3 Qualification of Welders.

TQ.TR: Training of Personnel

182. Question Result, ID, References Sat, TQ.TR.TRAINING.P, 192.615(b)(2) (192.805(b))

Question Text *Does the process require a continuing training program to be in place to effectively instruct emergency response personnel?*

Assets Covered 88991

Result Notes Emergency Procedures Manual Section 1.8.

183. Question Result, ID, References Sat, TQ.TR.TRAINING.R, 192.615(b)(2) (192.807(a), 192.807(b))

Question Text *Is training for emergency response personnel documented?*

Assets Covered 88991

Result Notes Reviewed annual training records for Cardinal First Responders.

Report Parameters: Results: all

Inspection documentation, including completed protocol forms, summary reports, executive summary reports, and enforcement documentation are for internal use only by federal or state pipeline safety regulators. Some inspection documentation may contain information which the operator considers to be confidential. In addition, supplemental inspection guidance and related documents in the file library are also for internal use only by federal or state pipeline safety regulators (with the exception of documents published in the federal register, such as advisory bulletins). Do not distribute or otherwise disclose such material outside of the state or federal pipeline regulatory organizations. Requests for such information from other government organizations (including, but not limited to, NTSB, GAO, IG, or Congressional Staff) should be referred to PHMSA Headquarters Management.