

## Assessment and Repair - External Corrosion Direct Assessment (ECDA)

**1. ECDA Plan (confirm)** *Has an ECDA plan and processes been prepared for conducting ECDA?*

(AR.EC.ECDAPLAN.P) (confirm)

195.588(b)(1) (195.588(b)(2); 195.588(b)(3); 195.588(b)(4); 195.588(b)(5))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**2. ECDA Pre-Assessment (detail)** *Do records indicate that the ECDA pre-assessment process complies with NACE SP0502 Section 3 and 195.588?* (AR.EC.ECDAPREASSESS.R) (detail)

(AR.EC.ECDAPREASSESS.R) (detail)

195.589(c) (195.588(b)(2))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**3. ECDA Indirect Examination (detail)** *Do records indicate that the ECDA indirect examination process complies with NACE SP0502 Section 4 and 195.588?* (AR.EC.ECDAINDIRECT.R) (detail)

(AR.EC.ECDAINDIRECT.R) (detail)

195.589(c) (195.588(b)(3))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**4. ECDA Indirect Examination (confirm)** *Was the indirect examination performed in accordance with the operator's procedures and 195.588(b)(3)?* (AR.EC.ECDAINDIRECT.O) (confirm)

(AR.EC.ECDAINDIRECT.O) (confirm)

195.588(c) (195.452(j)(5)(iii))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**5. ECDA Direct Examination (detail)** *Do records indicate that excavations and data collection were performed in accordance with NACE SP0502, Sections 5 and 6.4.2?* (AR.EC.ECDADIRECT.R) (detail)

(AR.EC.ECDADIRECT.R) (detail)

195.589(c) (195.588(b)(4))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**6. ECDA Direct Examination (confirm)** *Was the direct examination performed in accordance with requirements? (AR.EC.ECDADIRECT.O) (confirm)*

195.588(b)(4) (195.452(j)(5)(iii))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**7. Post Assessment (detail)** *Do records indicate that requirements were met for post assessment? (AR.EC.ECDAPOSTASSESS.R) (detail)*

195.589(c) (195.588(b)(5); 195.452(j)(3); 195.452(j)(4))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

**8. ECDA Change Control (detail)** *Do records indicate that the operator established and implemented criteria and internal notification procedures for any changes in the ECDA Plan? (AR.EC.ECDAPLANMOC.R) (detail)*

195.588(c) (195.588(b)(4)(iii))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes** MPL uses ILI

## Assessment and Repair - In-Line Inspection (Smart Pigs)

**1. Qualification of Personnel Who Evaluate ILI Results and Information Analysis (detail)** *Does the process specify qualification requirements for personnel who review and evaluate ILI assessment results and information analysis? (AR.IL.ILIREVIEWQUAL.P) (detail)*

195.452(f)(8) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Baker Hughes conducts the ILI. The IMP manual Section 6.2 and 6.3 contain the required personnel qualifications.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**2. Qualification of Personnel Who Evaluate ILI Results and Information Analysis**

**(detail)** Does the process demonstrate that personnel who review and evaluate ILI assessment results and information analysis are qualified? (AR.IL.ILIREVIEWQUAL.R) (detail)

195.452(l)(1)(ii) (195.452(f)(8); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Abel Salinas (w/Baker Hughes) MFL data analyst – Level II 9/2014 Cert ILI run 10/2014. Mr. Peelo reviews for MPL per procedure 6.2.

**3. Qualification of Personnel Performing ILI (detail)** Does the process identify the qualification requirements for personnel who perform ILI covered tasks? (AR.IL.ILIIMPLPERQUAL.P) (detail)

195.505(b)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**4. Qualification of Personnel Performing ILI (confirm)** Do records demonstrate that personnel who perform ILI covered tasks are qualified? (AR.IL.ILIIMPLPERQUAL.R) (confirm)

195.505(b)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**5. ILI Specifications (detail)** Do processes assure complete and adequate vendor ILI specifications? (AR.IL.ILISPECS.P) (detail)

195.452(f)(4) (195.452(h))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The IMP manual Section 6.3 contains the specifications for anomaly categorization. Section 5.3.2 contains the tool specifications.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**6. IMP Assessment Methods (detail)** Do processes specify the assessment methods that are appropriate for the pipeline specific integrity threats? (AR.IL.METHOD.P) (detail)

195.452(f)(5) (195.452(j)(5))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Section 8 and 8.1 – They contracted Keifner and Assoc. to assess the long seam threat and cyclic loading. The evaluation report is included as Appendix F for reference. The evaluation determined that the line is not susceptible to longitudinal seam weld failure. The evaluation also determined that pipeline only requires pressure testing every 76 years based on the pressure cycling and pipeline stresses. Based on these factors McChord Pipeline Co. has removed the requirement to pressure test the pipeline from the IMP due to the fact the ERW pipe seams in use are not susceptible to longitudinal seam failure. §195.452(c)(i)(B)  
Assessment of the MPL will address corrosion and deformation anomalies by using an in-line inspection tool (smart pig) and field verifications. MPL will select an in-line inspection tool that has the sensitivity to classify potential repair conditions.

**7. IMP Assessment Methods (confirm)** Are the assessment methods shown in the baseline and/or continual assessment plan appropriate for the pipeline specific integrity threats? (AR.IL.METHOD.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(5); 195.452(j)(5))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
  
ILI 2004 (UT)  
2009 (MFL)  
11/2014 (MFL)  
2019 is the next projected ILI run date. MPL will look at the current technology for evaluation in 2018 to determine which tool to procure for the tool run.

**8. IMP Baseline and/or Continual Assessments Prioritized Assessment Schedule (detail)** Does the continual assessment plan include a prioritized schedule in accordance with §195.452 (d) that is based on the risk factors required by §195.452(e)? (AR.IL.ASSESSCHEDULE.P) (detail)

195.452(f)(2) (195.452(c); 195.452(d); 195.452(e))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The assessment interval is in Section 8.1 and is NTE 5 yrs.

**9. IMP Baseline and/or Continual Assessments Prioritized Assessment Schedule (detail)** Does a review of records indicate that continual assessments are implemented as specified in the plan? (AR.IL.ASSESSCHEDULE.R) (detail)

195.452(l)(1)(ii) (195.452(b)(5); 195.452(c); 195.452(d); 195.452(f)(2); 195.452(f)(5))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The ILI run completed 10/30/2014 was the MFL run. The ILI run completed 8/19/2009 was an MFL/Caliper/IMU tool. On 12/15/2004, a UT/Caliper tool was employed.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**10. Validation of ILI Results (detail)** *Does the process provide for validating ILI results?*

(AR.IL.ILIVALIDATE.P) (detail)

195.452(f)(4) (195.452(b)(6))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Section 6.5 contains the steps for validation of assessment results.

**11. Validation of ILI Results (confirm)** *Does a review of records for validating ILI assessment results demonstrate that the process was implemented appropriately?* (AR.IL.ILIVALIDATE.R) (confirm)

195.452(l)(1)(ii) (195.452(b)(6))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
There were 3 digs on the last ILI run of 2014. NDE (Dye Penetrant) was conducted to check for cracking and is used anytime the coating is removed to check for SCC and other crack-like indications. The first dig location had two anomalies containing dents with metal loss and were immediate repairs. All anomalies remediated were Clock-spring repairs.

**12. Integration of ILI Results with Other Information (confirm)** *Is the process for integrating ILI results with other information adequate?* (AR.IL.ILIINTEGRATION.P) (confirm)

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Section 8.1 IMP

**13. Integration of ILI Results with Other Information (confirm)** *Did the operator integrate other data/information when evaluating tool data/results in the records reviewed?* (AR.IL.ILIINTEGRATION.R) (confirm)

195.452(l)(1)(ii) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
They perform run – to – run comparisons and also integrate with other data sources such as CIS data and FIRs (Field investigation reports)

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**14. ILI Acceptance Criteria (detail)** *Were survey acceptance criteria defined to ensure a successful ILI tool run?* (AR.IL.ILIACCEPCRITERIA.P) (detail)

195.452(f)(4) (195.452(j)(5)(i))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Section 9.4 of the MPL ILI Spec Rev 1. 2014 discusses tool passage and the ability of the technology used to find external corrosion and cracks or crack-like defects.

**15. ILI Acceptance Criteria (detail)** *Do records demonstrate that the selected ILI tool run met the defined ILI tool run acceptance criteria?* (AR.IL.ILIACCEPCRITERIA.R) (detail)

195.452(l)(1)(ii) (195.452(c)(1)(i)(A))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The selected tools that have been employed are suitable for MPL's threats.

**16. Quality of ILI Data Analysis (confirm)** *Do records demonstrate that the ILI data and other information were adequate to identify anomalies requiring remediation?* (AR.IL.ILIANALYSIS.R) (confirm)

195.452(l)(1)(ii) (195.452(h)(1); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The defect D-1 corrosion was called out at 0.075" and measured 0.099." D-3 was a corrosion defect and was indicated by the tool was a metal loss of 0.073", but the actual measured metal loss was 0.065". D-4 had a predicted metal loss of 0.066", but 0.040" was measured after excavation. As previously stated, they also use run-to-run analysis and it has been useful to use complementary tools.

**17. Integrity Assessments that Were Not performed as Scheduled or Within Required Timeframes (detail)** *Do records demonstrate that the performance of integrity assessments had been delayed such that a schedule or required timeframes was exceeded?* (AR.IL.ILIDELAY.R) (detail)

195.452(l)(1)(ii) (195.452(j)(1))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
This has not occurred.  
  
The ILI completed 10/30/2014 was a MFL run. The ILI run 8/19/2009 was an MFL/Caliper/IMU tool. On 12/15/2004, a UT/Caliper tool was employed.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**18. Industry Practices (detail)** *Does the process incorporate recognized industry practices, or an acceptable alternative method, in performing ILI integrity assessments?* (AR.IL.ILISTANDARD.P) (detail)

195.452(b)(6)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
They incorporated analysis for SCC and AC ground fault threats.

**19. Industry Practices (detail)** *Do records demonstrate that recognized industry practices, or an acceptable alternative method, have been incorporated in performing ILI integrity assessments?* (AR.IL.ILISTANDARD.R) (detail)

195.452(l)(1)(ii) (195.452(b)(6))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
I verified they are performing SCC assessments when the coating is removed, before repair, on ILI anomaly excavations

**20. Compliance with ILI Procedures (detail)** *Have the ILI procedures been followed?* (AR.IL.IIIMPLEMENT.O) (detail)

195.452(b)(5)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

## Assessment and Repair - Integrity Assessment Via Pressure Test

**2. Quality and Effectiveness of Corrosion Control Program (confirm)** *Does the process require that the effectiveness of the corrosion control program be evaluated when using pressure testing as an integrity assessment?* (AR.PTI.PRESSTESTCORR.P) (confirm)

195.452(f)(3) (195.452(g)(3))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method. The Keifner and Assoc. study conducted an evaluation. The evaluation determined that the pipeline only requires pressure testing every 76 years based on the pressure cycling and pipeline stresses. Based on these factors, McChord Pipeline Co. has removed the requirement to pressure test the pipeline from the IMP.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**3. Quality and Effectiveness of Corrosion Control Program (confirm)** *From the review of corrosion control records, was the corrosion control program proven to be effective when pressure testing was the integrity assessment method used? (AR.PTI.PRESSTESTCORR.R) (confirm)*

195.589(c) (195.452(f)(3); 195.452(g)(3))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method. The Keifner and Assoc. study conducted an evaluation. The evaluation determined that the pipeline only requires pressure testing every 76 years based on the pressure cycling and pipeline stresses. Based on these factors, McChord Pipeline Co. has removed the requirement to pressure test the pipeline from the IMP.

**4. Conduct of Pressure Tests (confirm)** *From the review of the results of pressure tests, do the test records validate the pressure test? (AR.PTI.PRESSTESTRESULT.R) (confirm)*

195.452(l)(1)(ii) (195.452(f)(2); 195.452(c))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method. The Keifner and Assoc. study conducted an evaluation. The evaluation determined that the pipeline only requires pressure testing every 76 years based on the pressure cycling and pipeline stresses. Based on these factors, McChord Pipeline Co. has removed the requirement to pressure test the pipeline from the IMP.

**5. Conduct of Pressure Tests (confirm)** *Was the pressure test conducted in accordance with procedures? (AR.PTI.PRESSTESTRESULT.O) (confirm)*

195.452(j)(5)(ii) (195.452(c)(1)(i)(b))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method. The Keifner and Assoc. study conducted an evaluation. The evaluation determined that the pipeline only requires pressure testing every 76 years based on the pressure cycling and pipeline stresses. Based on these factors, McChord Pipeline Co. has removed the requirement to pressure test the pipeline from the IMP.

## Assessment and Repair - Other Technology

**1. Other Technology Process (confirm)** *If "Other Technologies" are used, has a process been developed? (AR.OT.OTPLAN.P) (confirm)*

195.452(f)(5) (195.452(c)(1)(i)(D); 195.452(j)(5)(iv); 195.452(h)(4))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.



PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**2. Other Technology Process (detail)** *From the review of selected integrity assessments results, do records show the assessments were performed in accordance with procedures and vendor recommendations?* (AR.OT.OTPLAN.R) (detail)

195.452(l)(1)(ii) (195.452(j)(5)(iv); 195.452(f)(5))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.

**3. Other Technology Process (confirm)** *Has the process for the use of "Other Technology" been followed?* (AR.OT.OTPLAN.O) (confirm)

195.452(j)(5)(iv)

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.

**4. Categorization of Defects (detail)** *From the review of the results of selected integrity assessments, were defects identified and categorized within 180 days or other applicable timeframe?* (AR.OT.OTDEFECTCAT.R) (detail)

195.452(l)(1)(ii) (195.452(f)(4); 195.452(h)(2))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.

**5. Qualification Requirements for Personnel Reviewing Results of Other Technology Integrity Assessments (detail)** *Does the process specify qualification requirements for personnel who review the results of an integrity assessment and information analysis using Other Technology?* (AR.OT.ASSESSMENTREVIEW.P) (detail)

195.452(f)(8) (195.452(j)(5))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.

**6. Qualification Requirements for Personnel Reviewing Results of Other Technology Integrity Assessments (detail)** *From the review of the results of selected integrity assessments, were personnel who review the results of an integrity assessment and information analysis using Other Technology qualified?* (AR.OT.ASSESSMENTREVIEW.R) (detail)

195.452(l)(1)(ii) (195.452(f)(8))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
They do not use this as an assessment method.

## Assessment and Repair - Repair Criteria

**1. Analysis of Entire Pipeline Integrity when Evaluating the Integrity of each Pipeline Segment that Can Affect HCAs (detail)** *Does the process require the evaluation of all available information about the integrity of the entire pipeline and the consequences of failure when evaluating the integrity of each pipeline segment that can affect an HCA? (AR.RC.INTEGRATION.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The entire line is an HCA. The initial assessment was done and an annual review is also completed to look for changes to HCAs, new schools, .etc

**2. Analysis of All Available Information When Evaluating the Integrity of each Pipeline Segment that Can Affect HCAs (confirm)** *From the review of the results of ILI and remediation projects, were all available information considered about the integrity of the entire pipeline and consequences of failure when evaluating the integrity of each pipeline segment that can affect an HCA? (AR.RC.INTEGRATION.R) (confirm)*

195.452(l)(1)(ii) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

They have FIRs (Field investigation reports), run to run analyses, and also do CIS every 5yrs. Appendix B contains the segment analyses and they use quantitative and qualitative risk ranking. I am familiar with the pipeline route and it contains enough segments to properly characterize each segments unique likelihood and consequence(s).

**3. Remedial Actions (IM) (detail)** *Are anomaly remediation and documentation of remediation adequate? (AR.RC.REMEDIATION.O) (detail)*

195.452(h) (195.402(a); 195.402(c)(14); 195.422(a); 195.569; 195.589(c))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

They check for crack-like features at each repair. This is especially important since they employ type "A" composite sleeves for repairs. I reviewed the defect summary report in the 2014 MPL ILI Remedial Action Memo. Repairs completed 1/22/15

## Assessment and Repair - Repair Criteria (HCA)

**1. Timely Discovery (confirm)** *Does the integrity assessment process properly define discovery and the required time frame for anomalies in a pipeline segment that can affect an HCA? (AR.RCHCA.DISCOVERY.P) (confirm)*

195.452(f)(4) (195.452(h)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Section 6.3, 7.4.2, 7.4.3, and 7.4.4

**2. Timely Discovery (detail)** *From the review of the results of selected ILI and remediation projects, did discovery of all anomalies occur promptly, but no later than 180 days of completion of the assessment? (AR.RCHCA.DISCOVERY.R) (detail)*

195.452(h)(2)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

D1 and D2 were immediate repair conditions. See file letters from MPL regarding discovery of D1 and D2 and the associated contractor notice to MPL.

**3. Inclusion of All IM Repair Criteria (detail)** *Does process have criteria for remedial action to address integrity issues raised by the assessment methods and information analysis? (AR.RCHCA.IMPRC.P) (detail)*

195.452(f)(4) (195.452(h)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Section 7.4.2 and 7.4.5 (other conditions)

**4. Inclusion of All IM Repair Criteria (detail)** *Do records demonstrate that prompt action is taken to address all anomalous conditions discovered through the integrity assessment or information analysis? (AR.RCHCA.IMPRC.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

D3 and D4 were anomalous conditions that did not meet the 180 day repair criteria, but MPL investigated and remediated these two sites after they were indicated on two separate ILIs.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**5. Inclusion of All IM Repair Criteria (detail)** *From an observation of a repair, was it remediated in accordance with its categorized repair schedule? (AR.RCHCA.IMPRC.O) (detail)*

195.452(h)(4)	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				

**Notes**

**6. IMP Repair (detail)** *Does the process require that repairs be performed in a manner to ensure the integrity of the pipeline until the next scheduled assessment? (AR.RCHCA.IMREPAIR.P) (detail)*

195.452(f)(4) (195.452(h)(1))	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				

**Notes**  
Contained in IMP Manual Section 7.6

**7. Pressure Reduction (confirm)** *From the review of the results of ILI and remediation projects, was an acceptable pressure reduction promptly taken for each Immediate Repair condition or when a repair schedule could not be met? (AR.RCHCA.PRESSREDUCE.R) (confirm)*

195.452(l)(1)(ii) (95.404(a); 195.404 (b); 195.452(h)(1)(ii); 195.452(h)(4)(i); 195.55(a))	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
					X	

**Notes**  
This condition did not occur.

**8. Categorization of Defects (confirm)** *From the review of the results of integrity assessments and remediation projects, were there any defects that were not properly categorized? (AR.RCHCA.DEFECTCAT.R) (confirm)*

195.452(l)(1)(ii) (195.452(h)(4))	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				

**Notes**  
None

**9. Pressure Reduction (detail)** *Does the process for pressure reduction meet the code requirements? (AR.RCHCA.PRESSREDUCE.P) (detail)*

195.452(f)(4) (195.428; 195.452(h)(1)(i); 195.452(h)(1)(ii))	<b>Sat+</b>	<b>Sat</b>	<b>Concern</b>	<b>Unsat</b>	<b>NA</b>	<b>NC</b>
		X				

**Notes**  
Section 7.4.1 in the IMP Manual

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**10. IM Schedule (detail)** Do records demonstrate that the operator has met the schedule for remediating a condition in accordance with 195.452(h)(3)? (AR.RCHCA.IMSCHEDULE.R) (detail)

195.452(l)(1)(ii) (195.452.(h)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**11. Timely Remediation (detail)** From the review of the results of selected ILI and remediation projects, were defects in segments that could affect an HCA remediated or dispositioned within the applicable mandatory time limits of 195.452(h)(4)? (AR.RCHCA.SCHEDULEIMPL.R) (detail)

195.452(l)(1)(ii) (195.452(h)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

## Assessment and Repair - Repair Criteria (O and M)

**3. Remedial Actions (OM) (detail)** Do the performance and documentation of remediation meet procedural requirements for non-IM repairs? (AR.RCOM.REMEDIATIONOM.O) (detail)

195.422(a) (195.422(b); 195.401(b)(1)195.402(a);  
195.402(c)(14); 195.569; 195.579(c))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

They used Clock-springs for the four repairs.

## Assessment and Repair - Repair Methods and Practices

**2. Safety While Making Repair (detail)** Are repairs made in a safe manner and to prevent injury to persons and/or property damage? (AR.RMP.SAFETY.O) (detail)

195.422(a) (195.402(c)(14))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Proper shoring is used with gas sniffers, .etc. I reviewed the photos in the job folder.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**3. Permissible Repair Methods (confirm)** *Does the process identify permissible repair methods for each type of defect? (AR.RMP.METHOD.P) (confirm)*

195.402(c)(3) (195.452(h)(1); 195.585)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Contained in the maintenance manual E-9, E-2 (Leaking and non-leaking repairs)

**4. Permissible Repair Methods (confirm)** *From the review of the results of integrity assessment and remediation projects, were all repairs performed in accordance with procedures and applicable sections of 49 CFR Part 195? (AR.RMP.METHOD.R) (confirm)*

195.404(c)(1) (195.422(a); 195.422(b); 195.452(h)(1))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The repairs were suitable for the type of defects to be remediated.

**5. Qualification of Personnel Performing Pipeline Repair (confirm)** *From the review of the results of integrity assessment and remediation projects, were personnel performing repairs, other than welding, qualified for the task they performed? (AR.RMP.REPAIRQUAL.R) (confirm)*

195.505(b) (195.507(a); 195.505(c); 195.452(h)(1))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Darryl Grumbois 1/19/2015 qualified  
Jake Sells 2/23/2015 qualified  
Training for both provided by "Clock-spring" Co. that manufactures the composite repair sleeve.

**6. Repair Records (confirm)** *From the review of the results of integrity assessment and remediation projects and/or field observation, do repair records document all information needed to understand the conditions of the pipe and its environment and provide the information needed to support the Integrity Management risk model? (AR.RMP.PIPECONDITION.R) (confirm)*

195.404(c)(1) (195.404(c)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Run to run comparisons are used. Also, documentation of anomaly depth, size, .etc is captured

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**7. Replacement Components (confirm)** *From the review of the results of integrity assessment and remediation projects and/or field observation, were components that were replaced constructed to the same or higher standards as the original component?* (AR.RMP.REPLACESTD.R) (confirm)

195.422(b)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
They used Clock-springs.

**9. Welder Qualification (confirm)** *From the review of the results of integrity assessment and remediation projects, were repairs requiring welding performed by qualified welders using qualified welding procedures?* (AR.RMP.WELDERQUAL.R) (confirm)

195.214(a) (195.214(b); 195.222(a); 195.222(b);  
195.452(h)(1))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
No welding was performed to remediate any defects.

**10. Repair of Weld Defects (confirm)** *From the review of the results of integrity assessment and remediation projects, were weld defects repaired in accordance with 195.226 or 195.230?* (AR.RMP.WELDQUAL.R) (confirm)

195.226(a) (195.226(b); 195.226(c); 195.230(a); 195.230(b);  
195.230(c); 195.452(h)(1))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
No welding was performed to remediate any defects.

**11. Inspection of Welds (confirm)** *From the review of the results of integrity assessment and remediation projects, were welds inspected and examined in accordance with 195.228 or 195.234?* (AR.RMP.WELDINSPECT.R) (confirm)

195.228(a) (195.228(b); 195.234(a); 195.234(b); 195.234(c);  
195.234(d); 195.234(e); 195.452(h)(1))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
No welding was performed to remediate any defects.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**12. Crack Repair Criteria (detail)** *If cracks, SCC, or crack like features to be a threat on pipeline segments, have criteria been developed for remedial actions to address integrity issues raised by the assessment method?* (AR.RMP.CRACKREMEDIATION.P) (detail)

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Maintenance Manual E-2 (non-leaking pipe repair)

**13. Crack Repair Criteria (detail)** *If the IM risk assessment and integrity assessments found cracks, SCC, or crack like features cracking to be a threat on pipeline segments, have remedial actions been taken to address integrity issues when assessment criteria have been exceeded?* (AR.RMP.CRACKREMEDIATION.R) (detail)

195.452(l)(1)(ii) (195.452(f)(3))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
No cracks found.

**14. Non-Destructive Examination (NDE) of Pipeline for Cracks, SCC, or Crack Like Features When Exposed for Repair (detail)** *Does the process require that when a pipeline segment that meets the conditions for cracks, SCC, or crack like features is exposed an NDE method must be employed to evaluate for cracking?* (AR.RMP.CRACKNDE.P) (detail)

195.452(f)(4)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Maintenance manual 6-2 NDE Section 3.7

**15. Non-Destructive Examination (NDE) of Pipeline for Cracks, SCC, or Crack Like Features When Exposed for Repair (detail)** *Do records indicate that when a pipeline segment that meets the conditions for cracks, SCC, or crack like features were exposed an NDE method was employed to evaluate for cracking?* (AR.RMP.CRACKNDE.R) (detail)

195.452(l)(1)(ii) (195.452(f)(4); 195.404(c))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Mistras conducted NDE of all four anomalies using MPI or Dye-Pen.



**16. Non-Destructive Testing of Pipeline for Cracks, SCC, or Crack Like Features When Exposed for Repair (detail)** *From an observation at an excavation site with suspected cracks, SCC, or crack like features, did the operator's personnel perform an NDE of the segment? (AR.RMP.CRACKNDE.O) (detail)*

195.452(h)(1)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Reviewed NDE reports and job summary memos

## Integrity Management - Continual Evaluation and Assessment

**1. IMP Periodic Evaluation (detail)** *Does the process include adequate provisions for performing periodic evaluations of pipeline integrity? (IM.CA.PERIODICEVAL.P) (detail)*

195.452(f)(5) (195.452(e); 195.452(j)(1); 195.452(j)(2); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Manual Section 8.1 (NTE 5yrs)

**2. IMP Periodic Evaluation (confirm)** *Do records indicate that periodic evaluations of pipeline integrity are performed on a technically justified frequency? (IM.CA.PERIODICEVAL.R) (confirm)*

195.452(l)(1)(ii) (195.452(f)(5); 195.452(e); 195.452(j)(1); 195.452(j)(2); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Dates reviewed – no issues

**3. IMP Continual Evaluation and Assessment Intervals (detail)** *Did the operator's plan identify all of the risk factors that reflect the conditions on the pipeline segment to establish an assessment schedule? (IM.CA.ASSESSINTERVAL.P) (detail)*

195.452(f)(5) (195.452(e); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Section 9 IMP Manual

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**4. IMP Continual Evaluation and Assessment Intervals (detail)** *Are assessment intervals consistent with the risks identified for the pipeline and the results of previous assessments? (IM.CA.ASSESSINTERVAL.R) (detail)*  
195.452(l)(1)(ii) (195.452(f)(5); 195.452(e); 195.452(j)(1); 195.452(j)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**5. IMP Continual Evaluation and Assessment Methods (detail)** *Does process specify the assessment methods that are appropriate for the pipeline specific integrity threats? (IM.CA.ASSESSMETHOD.P) (detail)*  
195.452(f)(5) (195.452(j)(5); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**6. IMP Continual Evaluation and Assessment Methods (detail)** *Are assessment methods shown in the assessment plan appropriate for the pipeline specific integrity threats? (IM.CA.ASSESSMETHOD.R) (detail)*  
195.452(l)(1)(ii) (195.452(f)(5); 195.452(j)(5))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

ILI is the preferred assessment method

**7. IMP Continual Evaluation and Assessment Interval Variance Notification (detail)** *Does the process include adequate methodology for submitting variance notifications to PHMSA for assessment intervals longer than the 5-year maximum assessment interval and unavailable technology? (IM.CA.ASSESSNOTIFY.P) (detail)*

195.452(f)(5) (195.452(j)(4); 195.452(m))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

MPL IMP Manual Section 13

**8. IMP Continual Evaluation and Assessment Interval Variance Notification (detail)** *Have variance notifications been submitted to PHMSA for assessment intervals longer than the 5-year maximum assessment interval and unavailable technology? (IM.CA.ASSESSNOTIFY.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(5); 195.452(m); 195.452(j)(4))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**

This condition has not occurred.

## Integrity Management - High Consequence Areas

**2. IMP High Consequence Areas HCA Identification (detail)** *Does the process that requires identification of HCA-affecting segments include steps to identify, document, and maintain up-to-date geographic locations and boundaries of HCAs using the NPMS and other information sources as necessary?* (IM.HC.HCALOCATION.P) (detail)

195.452(f)(1) (195.452(a); 195.452(d)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

IMP Section 5 Segment Risk and HCA establishment. MPL submits annual updates to the NPMS and use PM 2236 for that update. PM 2235 is used for the annual HCA review.

**3. IMP High Consequence Areas HCA Identification (confirm)** *Do records show that locations and boundaries of HCA-affecting segments are correctly identified and maintained up-to-date?* (IM.HC.HCALOCATION.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(a); 195.452(b)(2); 195.452(d)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The entire line is in an HCA.

**4. IMP High Consequence Areas HCA Identification (detail)** *Are locations and boundaries of segments that can affect HCAs correctly identified and maintained up-to-date?* (IM.HC.HCALOCATION.O) (detail)

195.452(b)(5) (195.452(a); 195.452(b)(2); 195.453(f)(1))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The entire line is in an HCA.

**5. IMP High Consequence Areas Direct Intersect Method and Direct Intersect Exceptions (detail)** *Is the process adequate to determine all locations where pipeline systems "could affect" a high consequence area, including pipelines that are located in HCAs?* (IM.HC.HCAIDENT.P) (detail)

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The entire line is in an HCA.

**6. IMP High Consequence Areas Direct Intersect Method and Direct Intersect**

**Exceptions (detail)** Do records indicate that all locations where a pipeline system is located in an HCA are determined and, if any exceptions for segments that directly intersect an HCA are taken, an adequate and convincing technical justification is provided? (IM.HC.HCAIDENT.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.6(a); 195.6(b); 195.6(c); 195.450; 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Program Appendix A has the segments and Appendix B has a list of direct and indirect intersections.

**7. IMP High Consequence Areas Release Locations and Spill Volumes (detail)** Does the process include technically adequate methods to determine the locations/scenarios and volume of potential commodity releases? (IM.HC.HCARELEASE.P) (detail)

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
**Notes**  
IMP Program Appendix A contains this information. They have the line sub-segmented. For each HCA segment they have calculations of potential volume lost.

**8. IMP High Consequence Areas Release Locations and Spill Volumes (detail)** Do records indicate that identified release locations and spill volumes are appropriate, technically adequate, and determined consistent with the documented process? (IM.HC.HCARELEASE.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.6(a); 195.6(b); 195.6(c); 195.450; 195.452(a))

195.452(l)(1)(ii) (195.452(f)(1); 195.6(a); 195.6(b); 195.6(c); 195.450; 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
8/2/17 release was less than the calculated worst case release.

**9. IMP High Consequence Areas Overland Spread of Liquid Pool (detail)** Does the process include a technically adequate analysis of overland flow of liquids to determine the extent of commodity spread and its effects on HCAs? (IM.HC.HCAOVERLAND.P) (detail)

195.452(f)(1) (195.452(a))

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP manual Appendix A discusses flows and drainage. They have multiple Geographic Response Plans (GRPs)

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**10. IMP High Consequence Areas Overland Spread of Liquid Pool (detail)** *Do records indicate the overland spread analysis (if applicable) is technically adequate and consistent with program requirements?* (IM.HC.HCAOVERLAND.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

They added storm drains to their maps per audit suggestions from the 2014 audit.

**11. IMP High Consequence Areas Water Transport Analysis (detail)** *Does the process include a technically adequate analysis approach for water transport of liquids to determine the extent of commodity spread and its effects on HCAs?* (IM.HC.HCAH2OTRANSP.P) (detail)

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Appendix A discussed in pipeline segment identification process. Geographic Response Plans (GRPs) are generated taking this into consideration.

**12. IMP High Consequence Areas Water Transport Analysis (detail)** *Do records indicate that water transport analysis (if applicable) is technically adequate and consistent with its program requirements?* (IM.HC.HCAH2OTRANSP.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

I reviewed the Geographic Response Plans (GRPs) that MPL has created.

**13. IMP High Consequence Areas Air Dispersion Analysis (detail)** *Does the process include a technically adequate analysis of the dispersion of vapors from the release of highly volatile liquids and volatile liquids to determine effects on HCAs?* (IM.HC.HCAAIRDISP.P) (detail)

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**

Not HVL

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**14. IMP High Consequence Areas Air Dispersion Analysis (detail)** *Do records indicate that the analysis of air dispersion of vapors (if applicable) is technically adequate and consistent with its program requirements?* (IM.HC.HCAAIRDISP.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
Not HVL

**15. IMP High Consequence Areas Identification of Segments that Could Indirectly Affect an HCA (Buffer Zone) (detail)** *Does the process identify all locations of segments that do not intersect, but could indirectly affect, an HCA (buffer zone)?* (IM.HC.HCAINDIRECT.P) (detail)

195.452(f)(1) (195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**16. IMP High Consequence Areas Identification of Segments that Could Indirectly Affect an HCA (Buffer Zone) (detail)** *Do the records indicate that endpoints of segments that could affect an HCA have been correctly identified where a buffer zone approach is utilized?* (IM.HC.HCAINDIRECT.R) (detail)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(a))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**17. HCA Analysis Validity Check (confirm)** *Does the HCA analysis bound historical releases/accidents?* (IM.HC.HCABOUNDING.R) (confirm)

195.452(f)(1) (195.452(b)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
They did ID the HCA that affected HP-04. (8/2/17 Incident)

**18. IMP High Consequence Areas Timely Completion of Segment Identification (detail)** *Does the process require completion of segment identification for Category 3 pipelines prior to beginning of operation?* (IM.HC.HCACAT3.P) (detail)

195.452(f)(1) (195.452(b)(2))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
Not a Category 3 pipeline system

**19. IMP High Consequence Areas Timely Completion of Segment Identification**

**(confirm)** Do records indicate completion of segment identification for Category 3 pipelines prior to beginning of operation? (IM.HC.HCACAT3.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(1); 195.452(b)(2))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
Not a Category 3 pipeline system

## Integrity Management - Preventive and Mitigative Measures

**1. P&M Measures Actions Considered (detail)** Do the processes to identify additional preventive and mitigative actions include consideration of risk and cover a spectrum of alternatives? (Note: Leak detection and EFRDs are covered in more detail in subsequent questions within this sub-module.) (IM.PM.PMMGENERAL.P) (detail)

195.452(f)(6) (195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The IMP manual section 9 covers leak detection (9.2), EFRD check valves (9.3), and the operator must be present if excavation occurs within 15ft of their pipeline (9.1).

**2. P&M Measures Actions Considered (confirm)** Is there documentation of preventive and mitigative actions that have been considered and implemented? (IM.PM.PMMGENERAL.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Reviewed ROW inspections, 100% positive response to locate requests, ROW marker addition, weekly patrols, and increased rectifier operation checks.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**3. P&M Measures Actions Implemented (detail)** *Have preventive and mitigative actions been implemented as described in the records? (IM.PM.PMMIMPLEMENT.O) (detail)*

195.452(f)(6) (195.452(i)(1); 195.452(i)(2); 195.452(i)(3); 195.452(i)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Reviewed ROW patrol records back to 8/3/15. Checked rectifier work orders in the work order management system.

**4. P&M Measures Risk Analysis Application (detail)** *Does the process evaluate the effects of potential actions on reducing the likelihood and consequences of pipeline releases? (IM.PM.PMMRISK.P) (detail)*

195.452(f)(6) (195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP section 10. They conduct an annual review driven by a PM work order. They review a performance measure checklist.

**5. P&M Measures Risk Analysis Application (detail)** *Do records demonstrate evaluation of the effects of potential actions on reducing the likelihood and consequences of pipeline releases? (IM.PM.PMMRISK.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Appendix D KPIs have # calls, # damages, leak detection alarms (including false alarms), corrective actions, and the number of times the reverse check valve at the AFB is activated.

**6. P&M Measures Decision Basis (detail)** *Does the process provide adequate basis for deciding which candidate preventive and mitigative actions are implemented? (IM.PM.PMMBASIS.P) (detail)*

195.452(f)(6) (195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
MPL added procedures for resetting the reverse check valve due to deterioration measures indicated in IMP manual section 10



PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**7. P&M Measures Decision Basis (detail)** *Do records indicate that the P&MM decision making process has been applied as specified? (IM.PM.PMMBASIS.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(1); 195.452(i)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

This is on PM 1769 & the Appendix checklist. MPL conducts an annual integrity management audit that includes changes to the manual. I reviewed the 2016 Mr. Peelo letter to Mr. Shields. Additionally Mr. Peelo reviews other incidents across the industry for lessons learned.

**9. P&M Measures Leak Detection Capability Evaluation (detail)** *Does the process for evaluating leak detection capability consider all of the 195.452(i)(3) required factors and other relevant factors? (IM.PM.IMLEAKDETEVAL.P) (detail)*

195.452(f)(6) (195.452(i)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

IMP 9.2 WAC 480-75-300 They have leak alarms for a 2000 gallon difference over the entire shipment or for a leak that is more than 8% in 15 minutes.

**10. P&M Measures Leak Detection Capability Evaluation (detail)** *Do records indicate that all required and other relevant leak detection evaluation factors have been adequately evaluated? (IM.PM.IMLEAKDETEVAL.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Leak detection history shows no false alarms. During the Sefnco leak the 2000 gallon alarm did not trip, but the 8% in 15 min alarm did per the operator during the inspection.

**11. High Consequence Area Protection (confirm)** *What leak detection measures are taken to prevent and mitigate the consequences of a pipeline failure on an HCA? (IM.PM.IMLEAKDETHCA.R) (confirm)*

195.452(l)(1)(ii) (195.452(i)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

MPL has an automatic shutoff set at 175 psig.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**12. High Consequence Area Protection (confirm)** *Have leak detection measures taken to prevent and mitigate the consequences of a pipeline failure in an HCA been implemented?* (IM.PM.IMLEAKDETHCA.O) (confirm)

195.452(i)(3)

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
The leak detection system operated properly in the Sefnco leak.

**13. P&M Measures EFRD Need Evaluation (detail)** *Do processes for evaluating the need for additional EFRDs consider all of the 195.452(i)(4) required factors and other relevant factors?* (IM.PM.PMMEFRD.P) (detail)

195.452(f)(6) (195.452(i)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Plan 9.3 study demonstrated adding EFRDs would not increase protection.

**14. P&M Measures EFRD Need Evaluation (detail)** *Do records indicate that all required and other relevant EFRD evaluation factors were adequately evaluated and any actions taken as appropriate?* (IM.PM.PMMEFRD.R) (detail)

195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(4))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

**15. P&M Measures EFRD Need Evaluation (detail)** *Have identified EFRD projects been implemented as planned?* (IM.PM.PMMEFRD.O) (detail)

195.452(i)(4)

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**  
IMP Plan 9.3 study demonstrated adding EFRDs would not increase protection.

## Integrity Management - Quality Assurance

**1. Measuring Program Effectiveness (detail)** *Does the process for measuring IM program effectiveness include the elements necessary to conduct a meaningful evaluation?* (IM.QA.IMPERFEFFECTIVE.P) (detail)

195.452(f)(7) (195.452(k))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

IMP Section 10

**2. Measuring Program Effectiveness (confirm)** *Do records indicate the methods to measure program effectiveness provide effective evaluation of program performance and result in program improvements where necessary?* (IM.QA.IMPERFEFFECTIVE.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(7); 195.452(k))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Review Appendix D performance metrics

**3. Performance Metrics (detail)** *Does the process to evaluate IM program effectiveness include an adequate set of performance metrics to provide meaningful insight into IM program performance?* (IM.QA.IMPERFMETRIC.P) (detail)

195.452(f)(7) (195.452(k))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

IMP Section 10 and Appendix D

**4. Performance Metrics (confirm)** *Do records indicate that performance metrics are providing meaningful insight into integrity management program performance?* (IM.QA.IMPERFMETRIC.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(7); 195.452(k))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

Appendix D

**5. Record Keeping (detail)** *Is the process adequate to assure that the records required for integrity management program applications are maintained?* (IM.QA.RECORDS.P) (detail)

195.452(l) (195.404(c)(1); 195.452(c)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

IMP Section 6.6 (retained for life of pipeline) , 7.7 (ILI digs - life of the pipeline), 8.3 (IM interval retained)

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**6. Record Keeping (detail)** *From a review of records, has the operator documented decisions, analysis, and actions taken to implement and evaluate each key integrity management program activity? (IM.QA.RECORDS.R) (detail)*

195.452(l)(1)(ii) (195.452(c)(2))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
PM work orders are used for documentation (1769 PM) Appendix D -> Annual IM and HCA review letter.

## Integrity Management - Risk Analysis

**1. Risk Analysis Comprehensiveness of Approach (detail)** *Do processes for evaluating risk to HCAs require consideration of all relevant threat categories and risk factors when evaluating pipeline segments? (IM.RA.RAMETHOD.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Manual Section 9

**2. Risk Analysis Integration of Risk Information (detail)** *Do processes for evaluating risk to HCAs include the appropriate risk factors and other information? (IM.RA.RAINTEGRATE.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
Keifner and Associates in 2005 studied cycling, SCC, and long seam defects.

**3. Stress Corrosion Cracking Risk (detail)** *Does the IM risk assessment process give adequate criteria for evaluating and determining if stress corrosion cracking is a threat on the pipeline(s)? (IM.RA.SCCRISK.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Manual Section 8.1 Keifner Appendix E, 8.4, and 9, Maintenance Manual 6-2 3.7.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**4. Stress Corrosion Cracking Risk (detail)** *Has an IM risk assessment been performed addressing the threat of stress corrosion cracking on their pipeline segments that could affect an HCA? (IM.RA.SCCRISK.R) (detail)*

195.452(l)(1)(ii) (195.452(f)(3))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Manual Section 8.1 Keifner Appendix E, 8.4, and 9, Maintenance Manual 6-2 3.7

**5. Risk Analysis Input Information (detail)** *Are processes for data and information input into the risk analysis process adequate and appropriate? (IM.RA.RADATA.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
IMP Manual Section 9

**6. Risk Analysis Input Information (confirm)** *Are adequate data and information input into the risk analysis process? (IM.RA.RADATA.R) (confirm)*

195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
MPL Maps and elevation profile. Additionally, SCC evaluation records.

**7. Risk Analysis Input Information (confirm)** *Are conditions on the pipeline segments accurately reflected in the appropriate risk assessment data and information? (IM.RA.RADATA.O) (confirm)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
MPL maps and unique segment ID's were reviewed in comparison to current conditions along the pipeline ROW.

**8. Subdivision of Pipeline Segments for Risk Analysis Purposes (detail)** *Does the risk analysis process adequately represent and consider the variation in risk factors along the line such that segment-specific risk results and insights are obtained? (IM.RA.RASEGMENT.P) (detail)*

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**  
MPL maps have values for the risk category.

PHMSA Integrity Management Question Set (IA Equivalent)  
HAZARDOUS LIQUID INTEGRITY MANAGEMENT INSPECTION PROTOCOLS

**9. Risk Analysis Results (confirm)** *Are results of the process to evaluate risk useful for drawing conclusions and insights for decision making?* (IM.RA.RARERESULTS.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

SCC evaluation record was reviewed and the GRPs.

**10. Risk Analysis Facilities (detail)** *Does the process include technically adequate approaches to identify and evaluate the risks of facilities that can affect HCAs?* (IM.RA.RAFACILITY.P) (detail)

195.452(f)(3) (195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

This is in IMP Section 9.

**11. Risk Analysis Facilities (confirm)** *Has the analysis of risk of facilities been performed as required?* (IM.RA.RAFACILITY.R) (confirm)

195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

In the IMP Manual Appendix B Section 5 the detail is discussed.

## Reporting - Notices and Reporting

**5. Notifications (detail)** *Has notification been made if Other Technology is used, technology is unavailable, the 5 year reassessment interval cannot be met, remediation schedule cannot be met and pressure cannot be reduced, or a pressure reduction exceeds 365 days?* (RPT.NR.NOTIFICATIONS.R) (detail)

195.452(l)(1)(ii) (195.452(m))

Sat+	Sat	Concern	Unsat	NA	NC
				X	

**Notes**

No other technology is used.

## Reporting - Regulatory Reporting (Traditional)

**2. Annual Report IM Inspection Data (detail)** *Is Annual Report Part F Data complete and accurate?*  
(RPT.RR.ANNUALREPORTIMINSPECT.R) (detail)

195.49

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The reports were reviewed for 2016, 2015, and 2014. No issues were found.

**3. Annual Report IM Assessment Completion Data (detail)** *Is Annual Report Part G data complete and accurate?* (RPT.RR.ANNUALREPORTIMASSESS.R) (detail)

195.49

Sat+	Sat	Concern	Unsat	NA	NC
	X				

**Notes**

The reports were reviewed for 2016, 2015, and 2014. No issues were found.

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