

Assessment and Repair - Repair Criteria (HCA)

1. Timely Discovery 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) (detail) 195.452(f)(4) (195.452(h)(2))

Notes

2. Timely Discovery 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)

Notes

3. Inclusion of All IM Repair Criteria 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))

Notes

4. Inclusion of All IM Repair Criteria 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))

Notes

5. Inclusion of All IM Repair Criteria 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)

Notes

6. IMP Repair 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))

Notes

7. Pressure Reduction 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) (detail) 195.452(l)(1)(ii) (95.404(a); 195.404 (b); 195.452(h)(1)(ii); 195.452(h)(4)(i); 195.55(a))

Notes

8. Categorization of Defects 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) (detail) 195.452(l)(1)(ii) (195.452(h)(4))

Notes

9. Pressure Reduction 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))

Notes

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

10. IM Schedule *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))

Notes

11. Timely Remediation *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))

Notes

Assessment and Repair - Repair Criteria (O and M)

3. Remedial Actions (OM) *Do the performance and documentation of remediation meet procedural requirements for repairs in both HCA and non-HCA?* (AR.RCOM.REMEDIATIONOM.O) (detail) 195.422(a) (195.422(b); 195.402(a); 195.402(c)(14); 195.569; 195.579(c))

Notes

Assessment and Repair - External Corrosion Direct Assessment (ECDA)

1. ECDA Plan *Has an ECDA plan and processes been prepared for conducting ECDA?* (AR.EC.ECDAPLAN.P) (detail) 195.588(b)(1) (195.588(b)(2); 195.588(b)(3); 195.588(b)(4); 195.588(b)(5))

Notes

2. ECDA Pre-Assessment *Do records indicate that the ECDA pre-assessment process complies with NACE SP0502 Section 3 and 195.588?* (AR.EC.ECDAPREASSESS.R) (detail) 195.589(c) (195.588(b)(2))

Notes

3. ECDA Indirect Examination *Do records indicate that the ECDA indirect examination process complies with NACE SP0502 Section 4 and 195.588?* (AR.EC.ECDAINDIRECT.R) (detail) 195.589(c) (195.588(b)(3))

Notes

4. ECDA Indirect Examination *Was the indirect examination performed in accordance with the operator's procedures and 195.588(b)(3)?* (AR.EC.ECDAINDIRECT.O) (detail) 195.588(c) (195.452(j)(5)(iii))

Notes

5. ECDA Direct Examination *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) 195.589(c) (195.588(b)(4))

Notes

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

6. ECDA Direct Examination *Was the direct examination performed in accordance with requirements?* (AR.EC.ECDADIRECT.O) (detail) 195.588(b)(4) (195.452(j)(5)(iii))

Notes

7. Post Assessment *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))

Notes

8. ECDA Change Control *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))

Notes

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

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

Notes

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

Notes

3. Qualification of Personnel Performing ILI *Does the process identify the qualification requirements for personnel who perform ILI covered tasks?* (AR.IL.ILIIMPLPERQUAL.P) (detail) 195.505(b)

Notes

4. Qualification of Personnel Performing ILI *Do records demonstrate that personnel who perform ILI covered tasks are qualified?* (AR.IL.ILIIMPLPERQUAL.R) (detail) 195.505(b)

Notes

5. ILI Specifications *Do processes assure complete and adequate vendor ILI specifications?* (AR.IL.ILISPECS.P) (detail) 195.452(f)(4) (195.452(h))

Notes

6. IMP Assessment Methods *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))

Notes

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

7. IMP Assessment Methods *Are the assessment methods shown in the baseline and/or continual assessment plan appropriate for the pipeline specific integrity threats?* (AR.IL.METHOD.R) (detail) 195.452(l)(1)(ii) (195.452(f)(5); 195.452(j)(5))

Notes

8. IMP Baseline and/or Continual Assessments Prioritized Assessment Schedule *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.ASSESSSCHEDULE.P) (detail) 195.452(f)(2) (195.452(c); 195.452(d); 195.452(e))

Notes

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

Notes

10. Validation of ILI Results *Does the process provide for validating ILI results?* (AR.IL.ILIVALIDATE.P) (detail) 195.452(f)(4) (195.452(b)(6))

Notes

11. Validation of ILI Results *Does a review of records for validating ILI assessment results demonstrate that the process was implemented appropriately?* (AR.IL.ILIVALIDATE.R) (detail) 195.452(l)(1)(ii) (195.452(b)(6))

Notes

12. Integration of ILI Results with Other Information *Is the process for integrating ILI results with other information adequate?* (AR.IL.ILIINTEGRATION.P) (detail) 195.452(f)(3) (195.452(g))

Notes

13. Integration of ILI Results with Other Information *Did the operator integrate other data/information when evaluating tool data/results in the records reviewed?* (AR.IL.ILIINTEGRATION.R) (detail) 195.452(l)(1)(ii) (195.452(g))

Notes

14. ILI Acceptance Criteria *Were survey acceptance criteria defined to ensure a successful ILI tool run?* (AR.IL.ILIACCEPCRITERIA.P) (detail) 195.452(f)(4) (195.452(5)(5)(i))

Notes

15. ILI Acceptance Criteria *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))

Notes

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

16. Quality of ILI Data Analysis *Do records demonstrate that the ILI data and other information were adequate to identify anomalies requiring remediation?* (AR.IL.ILIANALYSIS.R) (detail) 195.452(l)(1)(ii) (195.452(h)(1); 195.452(g))

Notes

17. Integrity Assessments that Were Not performed as Scheduled or Within Required

Timeframes *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))

Notes

18. Industry Practices *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)

Notes

19. Industry Practices *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))

Notes

20. Compliance with ILI Procedures *Have the ILI procedures been followed?* (AR.IL.ILIIMPLEMENT.O) (detail) 195.452(b)(5)

Notes

Assessment and Repair - Other Technology

1. Other Technology Process *If "Other Technologies" are used, has a process been developed?* (AR.OT.OTPLAN.P) (detail) 195.452(f)(5) (195.452(c)(1)(i)(D); 195.452(j)(5)(iv); 195.452(h)(4))

Notes

2. Other Technology Process *From the review of the results of selected integrity assessments, do records show that the assessment was 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))

Notes

3. Other Technology Process *Has the process for the use of "Other Technology" been followed?* (AR.OT.OTPLAN.O) (detail) 195.452(j)(5)(iv)

Notes

4. Categorization of Defects *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))*

Notes

5. Qualification Requirements for Personnel Reviewing Results of Other Technology Integrity Assessments *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))*

Notes

6. Qualification Requirements for Personnel Reviewing Results of Other Technology Integrity Assessments *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))*

Notes

Assessment and Repair - Integrity Assessment Via Pressure Test

2. Quality and Effectiveness of Corrosion Control Program *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) (detail) 195.452(f)(3) (195.452(g)(3))*

Notes

3. Quality and Effectiveness of Corrosion Control Program *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) (detail) 195.589(c) (195.452(f)(3); 195.452(g)(3))*

Notes

4. Conduct of Pressure Tests *From the review of the results of pressure tests, do the test records validate the pressure test? (AR.PTI.PRESSTESTRESULT.R) (detail) 195.452(l)(1)(ii) (195.452(f)(2); 195.452(c))*

Notes

5. Conduct of Pressure Tests *Was the pressure test conducted in accordance with procedures? (AR.PTI.PRESSTESTRESULT.O) (detail) 195.452(j)(5)(ii) (195.452(c)(1)(i)(b))*

Notes

Assessment and Repair - Repair Criteria

1. Analysis of Entire Pipeline Integrity when Evaluating the Integrity of each Pipeline Segment that Can Affect HCAs *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))

Notes

2. Analysis of All Available Information When Evaluating the Integrity of each Pipeline Segment that Can Affect HCAs *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) (detail) 195.452(l)(1)(ii) (195.452(g))

Notes

3. Remedial Actions (IM) *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))

Notes

Assessment and Repair - Repair Methods and Practices

2. Safety While Making Repair *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))

Notes

3. Permissible Repair Methods *Does the process identify permissible repair methods for each type of defect?* (AR.RMP.METHOD.P) (detail) 195.402(c)(3) (195.452(h)(1); 195.585)

Notes

4. Permissible Repair Methods *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) (detail) 195.404(c)(1) (195.422(a); 195.422(b); 195.452(h)(1))

Notes

5. Qualification of Personnel Performing Pipeline Repair *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) (detail) 195.505(b) (195.507(a); 195.505(c); 195.452(h)(1))

Notes

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

6. Repair Records *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) (detail) 195.404(c)(1) (195.404(c)(2))

Notes

7. Replacement Components *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) (detail) 195.422(b)

Notes

9. Welder Qualification *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) (detail) 195.214(a) (195.214(b); 195.222(a); 195.222(b); 195.452(h)(1))

Notes

10. Repair of Weld Defects *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) (detail) 195.226(a) (195.226(b); 195.226(c); 195.230(a); 195.230(b); 195.230(c); 195.452(h)(1))

Notes

11. Inspection of Welds *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) (detail) 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))

Notes

12. Crack Repair Criteria *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.CRACKREMEDATION.P) (detail) 195.452(f)(3) (195.452(g))

Notes

13. Crack Repair Criteria *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.CRACKREMEDATION.R) (detail) 195.452(l)(1)(ii) (195.452(f)(3))

Notes

14. Non-Destructive Examination (NDE) of Pipeline for Cracks, SCC, or Crack Like Features When Exposed for Repair *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)

Notes

15. Non-Destructive Examination (NDE) of Pipeline for Cracks, SCC, or Crack Like Features

When Exposed for Repair *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))

Notes

16. Non-Destructive Testing of Pipeline for Cracks, SCC, or Crack Like Features When Exposed for Repair

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)

Notes

Integrity Management - Continual Evaluation and Assessment

1. IMP Periodic Evaluation *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))

Notes

2. IMP Periodic Evaluation *Do records indicate that periodic evaluations of pipeline integrity are performed on a technically justified frequency?* (IM.CA.PERIODICEVAL.R) (detail) 195.452(l)(1)(ii) (195.452(f)(5); 195.452(e); 195.452(j)(1); 195.452(j)(2); 195.452(g))

Notes

3. IMP Continual Evaluation and Assessment Intervals *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))

Notes

4. IMP Continual Evaluation and Assessment Intervals *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))

Notes

5. IMP Continual Evaluation and Assessment Methods *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))

Notes

6. IMP Continual Evaluation and Assessment Methods *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))

Notes

7. IMP Continual Evaluation and Assessment Interval Variance Notification *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))

Notes

8. IMP Continual Evaluation and Assessment Interval Variance Notification *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))

Notes

Integrity Management - High Consequence Areas

2. IMP High Consequence Areas HCA Identification *Does the process that requires identification of segments 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))

Notes

3. IMP High Consequence Areas HCA Identification *Do records show that locations and boundaries of HCA-affecting segments are correctly identified and maintained up-to-date?* (IM.HC.HCALOCATION.R) (detail) 195.452(l)(1)(ii) (195.452(f)(1); 195.452(a); 195.452(b)(2); 195.452(d)(3))

Notes

4. IMP High Consequence Areas HCA Identification *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))

Notes

5. IMP High Consequence Areas Direct Intersect Method and Direct Intersect Exceptions *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))

Notes

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

Notes

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

7. IMP High Consequence Areas Release Locations and Spill Volumes *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))

Notes

8. IMP High Consequence Areas Release Locations and Spill Volumes *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))

Notes

9. IMP High Consequence Areas Overland Spread of Liquid Pool *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))

Notes

10. IMP High Consequence Areas Overland Spread of Liquid Pool *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))

Notes

11. IMP High Consequence Areas Water Transport Analysis *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))

Notes

12. IMP High Consequence Areas Water Transport Analysis *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))

Notes

13. IMP High Consequence Areas Air Dispersion Analysis *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))

Notes

14. IMP High Consequence Areas Air Dispersion Analysis *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))

Notes

15. IMP High Consequence Areas Identification of Segments that Could Indirectly Affect an HCA (Buffer Zone) *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))

Notes

16. IMP High Consequence Areas Identification of Segments that Could Indirectly Affect an HCA (Buffer Zone) *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))

Notes

17. IMP High Consequence Areas Timely Completion of Segment Identification *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))

Notes

18. IMP High Consequence Areas Timely Completion of Segment Identification *Do records indicate completion of segment identification for Category 3 pipelines prior to beginning of operation?* (IM.HC.HCACAT3.R) (detail) 195.452(l)(1)(ii) (195.452(f)(1); 195.452(b)(2))

Notes

19. HCA Analysis Validity Check *Does the HCA analysis bound historical releases/accidents?* (IM.HC.HCABOUNDING.R) (detail) 195.452(f)(1) (195.452(b)(4))

Notes

Integrity Management - Preventive and Mitigative Measures

1. P&M Measures Actions Considered *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))

Notes

2. P&M Measures Actions Considered *Is there documentation of preventive and mitigative actions that have been considered and implemented?* (IM.PM.PMMGENERAL.R) (detail) 195.452(l)(1)(ii) (195.452(f)(6); 195.452(i)(1); 195.452(i)(2))

Notes

3. P&M Measures Actions Implemented *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))

Notes

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

4. P&M Measures Risk Analysis Application *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))

Notes

5. P&M Measures Risk Analysis Application *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))

Notes

6. P&M Measures Decision Basis *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))

Notes

7. P&M Measures Decision Basis *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))

Notes

9. P&M Measures Leak Detection Capability Evaluation *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))

Notes

10. P&M Measures Leak Detection Capability Evaluation *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))

Notes

11. High Consequence Area Protection *What leak detection measures are taken to prevent and mitigate the consequences of a pipeline failure on an HCA?* (IM.PM.IMLEAKDETHCA.R) (detail) 195.452(l)(1)(ii) (195.452(i)(3))

Notes

12. High Consequence Area Protection *Have leak detection measures taken to prevent and mitigate the consequences of a pipeline failure in an HCA been implemented?* (IM.PM.IMLEAKDETHCA.O) (detail) 195.452(i)(3)

Notes

13. P&M Measures EFRD Need Evaluation *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))

Notes

14. P&M Measures EFRD Need Evaluation *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))

Notes

15. P&M Measures EFRD Need Evaluation *Have identified EFRD projects been implemented as planned?* (IM.PM.PMMEFRD.O) (detail) 195.452(i)(4)

Notes

Integrity Management - Quality Assurance

1. Performance Measures *Does the process include an adequate set of performance measures to provide meaningful insight into integrity management program performance?* (IM.QA.IMPERFMEAS.P) (detail) 195.452(f)(7) (195.452(k))

Notes

2. Performance Measures *Does the operator's evaluation of the selected performance measures provide meaningful insight into integrity management program performance?* (IM.QA.IMPERFMEAS.R) (detail) 195.452(l)(1)(ii) (195.452(f)(7); 195.452(k))

Notes

3. Record Keeping *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))

Notes

4. Record Keeping *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))

Notes

Integrity Management - Risk Analysis

1. Risk Analysis Comprehensiveness of Approach *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))

Notes

2. Risk Analysis Integration of Risk Information *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))

Notes

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3. Stress Corrosion Cracking Risk *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))

Notes

4. Stress Corrosion Cracking Risk *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))

Notes

5. Risk Analysis Input Information *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))

Notes

6. Risk Analysis Input Information *Are adequate data and information input into the risk analysis process?* (IM.RA.RADATA.R) (detail) 195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Notes

7. Risk Analysis Input Information *Are conditions on the pipeline segments accurately reflected in the appropriate risk assessment data and information?* (IM.RA.RADATA.O) (detail) 195.452(f)(3) (195.452(g))

Notes

8. Subdivision of Pipeline Segments for Risk Analysis Purposes *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))

Notes

9. Risk Analysis Results *Are results of the process to evaluate risk useful for drawing conclusions and insights for decision making?* (IM.RA.RAREULTS.R) (detail) 195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Notes

10. Risk Analysis Facilities *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))

Notes

11. Risk Analysis Facilities *Has the analysis of risk of facilities been performed as required?* (IM.RA.RAFACILITY.R) (detail) 195.452(l)(1)(ii) (195.452(f)(3); 195.452(g))

Notes

Reporting - Notices and Reporting

5. Notifications *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))

Notes

Reporting - Regulatory Reporting (Traditional)

2. Annual Report IM Inspection Data *Is Annual Report Part F Data complete and accurate?*
(RPT.RR.ANNUALREPORTIMINSPECT.R) (detail) 195.49

Notes

3. Annual Report IM Assessment Completion Data *Is Annual Report Part G data complete and accurate?*
(RPT.RR.ANNUALREPORTIMASSESS.R) (detail) 195.49

Notes

Acceptable Use: 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.