

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

**1. Repair Criteria in Non-Covered Segments** *Does the integrity assessment and maintenance processes include adequate criteria for determining the need for, and timeliness of, pipeline defect repairs in non-covered segments?* (AR.RCOM.NONCOVERED.P) 192.485(a) (192.485(b);192.485(c);192.703(b))

**2. Repair Criteria in Non-Covered Segments** *From the review of the results of integrity assessments, did the operator repair conditions that posed a threat to pipeline integrity on Non-Covered segments?* (AR.RCOM.NONCOVERED.R) 192.485(a) (192.485(b);192.485(c);191.23(a)(1);192.703(b))

**3. Field Inspection - Remedial Actions (OM)** *Is anomaly remediation and documentation of remediation adequate for all segments?* (AR.RCOM.REMEDIATIONOM.O) 192.485(a) (192.485(b);192.485(c))

**4. Alternative Maximum Allowable Operating Pressure per 192.620 (80% SMYS Rule)?** *If the pipeline operates using an alternative maximum allowable operating pressure per 192.620 (80% SMYS Rule), do the processes meet the requirements of the permit or 192.620?* (AR.RCOM.RCAMAOP.P) 192.620(d)

**5. Alternative Maximum Allowable Operating Pressure per 192.620 (80% SMYS Rule)?** *If the pipeline operates using an alternative maximum allowable operating pressure per 192.620 (80% SMYS Rule), from a review of selected records, were required repairs performed?* (AR.RCOM.RCAMAOP.R) 192.620(d)

## Assessment and Repair - Confirmatory Direct Assessment

**1. Qualification of Operator/Vendor Personnel Who Evaluate CDA Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate CDA assessment results meet appropriate training, experience, and qualification criteria?* (AR.CDA.CDAREVQUAL.P) 192.915(a) (192.915(b))

**2. Qualification of Operator/Vendor Personnel Who Evaluate CDA Results** *Do records demonstrate that operator/vendor personnel, including supervisors, who conduct assessments or review assessment results, are qualified for the tasks they perform?* (AR.CDA.CDAREVQUAL.R) 192.947(h) (192.915(a);192.915(b))

**3. Qualification of Operator/Vendor Personnel Who Evaluate CDA Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.CDA.CDAREVQUAL.O) 192.915(a) (192.915(b))

**4. CDA Plan** *Is an adequate Confirmatory Direct Assessment Plan in place?* (AR.CDA.CDAPLAN.P) 192.931(a) (192.931(b);192.931(c);192.931(d))

**5. External Corrosion Plan** *Do records indicate that the external corrosion plan was properly implemented?* (AR.CDA.CDAEXTCORR.R) 192.947(h) (192.931(b))

**6. Internal Corrosion Plan** *Do records demonstrate that the internal corrosion plan was properly implemented?* (AR.CDA.CDAINTCORR.R) 192.947(h) (192.931(c))

**7. Remediation of Indications** *Do records demonstrate that the next assessment should have been accelerated?* (AR.CDA.CDAINDICATION.R) 192.947(h) (192.931(d))

**8. CDA** *Does the process adequately account for taking required actions to address significant corrosion threats identified using confirmatory direct assessment?* (AR.CDA.CDACORR.P) 192.933 (192.917(e)(5))

**9. CDA** *Do records demonstrate that required actions are being taken to address significant corrosion threats identified by CDA as required?* (AR.CDA.CDACORR.R) 192.933 (192.917(e)(5))

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

**1. Qualification of Operator/Vendor Personnel Who Evaluate ECDA Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate ECDA assessment results meet appropriate training, experience, and qualification criteria?* (AR.EC.ECDAREVQUAL.P) 192.915(a) (192.915(b))

**2. ECDA Pre-Assessment** *Do records demonstrate that the ECDA pre-assessment process complied with NACE SP0502-2010 Section 3 and 192.925(b)(1)?* (AR.EC.ECDAPREASSESS.R) 192.947(g) (192.925(b)(1))

**3. Qualification of Operator/Vendor Personnel Who Evaluate ECDA Results** *Do records demonstrate that operator/vendor personnel, including supervisors, who conduct ECDA assessments or review and analyze assessment results are qualified for the tasks they perform?* (AR.EC.ECDAREVQUAL.R) 192.947(g) (192.915(a);192.915(b))

**4. Qualification of Operator/Vendor Personnel Who Evaluate ECDA Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.EC.ECDAREVQUAL.O) 192.915(a) (192.915(b))

**5. ECDA Plan** *Is an adequate ECDA plan and process in place for conducting ECDA?* (AR.EC.ECDAPLAN.P) 192.925(a) (192.925(b))

**6. Integration of ECDA Results with other Information** *Is the process for integrating ECDA results with other information adequate?* (AR.EC.ECDAINTEGRATION.P) 192.917(b) (ASME B31.8S-2004 Section 4.5)

**7. Integration of ECDA Results with other Information** *Do records demonstrate that the operator integrated other data/information when evaluating data/results?* (AR.EC.ECDAINTEGRATION.R) 192.947(g) (192.917(b))

**8. ECDA Region Identification** *Do records demonstrate that the operator identified ECDA Regions?* (AR.EC.ECDAREGION.R) 192.947(g) (192.925(b)(1))

**9. ECDA Indirect Examination** *Do records demonstrate that ECDA indirect inspection process complied with NACE SP 0502-2010 Section 4 and ASME B31.8S-2004, Section 6.4?* (AR.EC.ECDAINDIRECT.R) 192.947(g) (192.925(b)(2))

**10. ECDA Direct Examination** *Do records demonstrate that excavations, direct examinations, and data collection were performed in accordance with NACE SP 0502-2010, Sections 5 and 6.4.2 and ASME B31.8S-2004, Section 6.4?* (AR.EC.ECDADIRECT.R) 192.947(g) (192.925(b)(3))

**11. ECDA Direct Examination** *Were ECDA direct examinations adequately conducted?* (AR.EC.ECDADIRECT.O) 192.925(b)(3)

**12. Quality of ECDA Data Analysis** *Do records demonstrate that an analysis of the ECDA data and other information was adequate to identify areas where external corrosion activity is most likely?* (AR.EC.ECDAANALYSIS.R) 192.947(g) (192.925(b)(4);192.933(b))

**13. ECDA Change Control** *Have criteria and internal notification processes been established and implemented for any changes in the ECDA plan?* (AR.EC.ECDAPLANMOC.P) 192.947(g) (192.925(b)(3)(iii);192.911(k))

**14. ECDA Change Control** *Do records demonstrate that changes in the ECDA plan have been implemented and documented?* (AR.EC.ECDAPLANMOC.R) 192.947(g) (192.925(b)(3)(iii))

**15. ECDA Post-Assessment** *Do records demonstrate that the requirements for post-assessment were met?* (AR.EC.ECDAPOSTASSESS.R) 192.947(g) (192.925(b)(4))

**16. AMAOP ECDA** *If ECDA was performed on segments (as allowed by 192.620(d)(9)(iii)), were all ECDA assessment requirements completed?* (AR.EC.ECDAMAOP.R) 192.947(g) (192.620(d)(9)(iii);192.620(d)(10)(i);192.620(d)(10)(iii))

**17. AMAOP ECDA** *If ECDA was performed on segments (as allowed by 192.620(d)(9)(iii)), were all ECDA assessment requirements completed?* (AR.EC.ECDAMAOP.O) 192.620(d)(9)(iii) (192.620(d)(10)(i);192.620(d)(10)(iii))

**18. External Corrosion** *Does the process adequately account for taking required actions to address significant external corrosion threats?* (AR.EC.ECCORR.P) 192.933 (192.917(e)(5))

**19. External Corrosion** *Do records demonstrate that required actions are being taken to address significant external corrosion threats as required?* (AR.EC.ECCORR.R) 192.933 (192.917(e)(5))

## Assessment and Repair - Internal Corrosion Direct Assessment (ICDA)

- 1. Qualification of Operator/Vendor Personnel Who Evaluate ICDA Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate ICDA assessment results meet appropriate training, experience, and qualification criteria?* (AR.IC.ICDAREVQUAL.P) 192.915(a) (192.915(b))
  
- 2. Qualification of Operator/Vendor Personnel Who Evaluate ICDA Results** *Do records demonstrate that operator/vendor personnel, including supervisors, who conduct ICDA assessments or review and analyze assessment results, are qualified for the tasks they perform?* (AR.IC.ICDAREVQUAL.R) 192.947(g) (192.915(a);192.915(b))
  
- 3. Qualification of Operator/Vendor Personnel Who Evaluate ICDA Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.IC.ICDAREVQUAL.O) 192.915(a) (192.915(b))
  
- 4. ICDA Plan** *Is an ICDA plan and process in place for conducting ICDA?* (AR.IC.ICDAPLAN.P) 192.927(c) (192.927(a);192.927(b))
  
- 5. Pre-Assessment** *Do records demonstrate that the requirements for an ICDA pre-assessment were met?* (AR.IC.ICDAPREASSESS.R) 192.927(c)(1) (192.947(g))
  
- 6. Integration of ICDA Results with other Information** *Is the process for integrating ICDA results with other information adequate?* (AR.IC.ICDAINTEGRATION.P) 192.917(b)
  
- 7. Integration of ICDA Results with Other Information** *Do records demonstrate that other data/information was integrated when evaluating data/results?* (AR.IC.ICDAINTEGRATION.R) 192.917(b) (192.947(g))
  
- 8. ICDA Region Identification** *Do records demonstrate that ICDA Regions were adequately identified?* (AR.IC.ICDAREGION.R) 192.947(g) (192.927(c)(2);192.927(c)(5))

**9. Identification of Locations for Excavation and Direct Examination** *Do records demonstrate that sites were identified where internal corrosion may be present?* (AR.IC.ICDADIRECT.R) 192.947(g) (192.927(c)(3);192.927(c)(5))

**10. Post-Assessment Evaluation and Monitoring** *Do records demonstrate that the operator assessed the effectiveness of the ICDA process?* (AR.IC.ICDAPOSTASSESS.R) 192.947(g) (192.927(c)(4)(i);192.927(c)(4)(ii);192.477)

**11. Quality of ICDA Data Analysis** *Do records demonstrate that sufficient data was used to complete the ICDA analysis to identify the internal corrosion threats to the pipeline?* (AR.IC.ICDAANALYSIS.R) 192.947(g) (192.927(c);192.933(b))

**12. AMAOP ICDA** *If the pipeline is operated using an alternative maximum allowable operating pressure per 192.620 (80% SMYS Rule) were required ICDA assessments performed?* (AR.IC.ICDAMAOP.R) 192.947(g) (192.620(d)(9);192.620(d)(10);192.927)

**13. P&M Measures (Internal Corrosion)** *Does the process adequately account for taking required actions to address significant internal corrosion threats related to internal corrosion?* (AR.IC.ICCORR.P) 192.933 (192.917(e)(5))

**14. P&M Measures (Internal Corrosion)** *Do records demonstrate that required actions are being taken to address significant internal corrosion threats as required?* (AR.IC.ICCORR.R) 192.933 (192.917(e)(5))

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

**1. Qualification of Operator/Vendor Personnel (including Supervisors) Who Evaluate ILI Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate ILI assessment results meet appropriate training, experience, and qualification criteria?* (AR.IL.ILIREVIEWQUAL.P) 192.915(a) (192.915(b))

**2. Qualification of Operator/Vendor Personnel (including Supervisors) Who Evaluate ILI Results** *Do records demonstrate that personnel who conduct assessments or review assessment results are qualified per the process requirements?* (AR.IL.ILIREVIEWQUAL.R) 192.947(g) (192.915(a);192.915(b))

**3. Qualification of Operator/Vendor Personnel (including Supervisors) Who Evaluate ILI**

**Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.IL.ILIREVIEWQUAL.O) 192.915(a) (192.915(b))

**4. ILI Specifications** *Does the process assure complete and adequate vendor ILI specifications?* (AR.IL.ILISPECS.P) 192.921(a)(1) (192.933(b))

**5. ILI Specifications** *Do records demonstrate that the ILI specifications were complete and adequate?* (AR.IL.ILISPECS.R) 192.947(g) (192.933(b))

**6. IMP Assessment Methods** *Does the process specify the assessment methods that are appropriate for the pipeline specific integrity threats?* (AR.IL.ASSESSMETHOD.P) 192.919(b) (192.921(a);192.937(c))

**7. IMP Assessment Methods** *Do records demonstrate that the assessment methods shown in the baseline and/or continual assessment plan were appropriate for the pipeline specific integrity threats?* (AR.IL.ASSESSMETHOD.R) 192.947(g) (192.919(b);192.921(a);192.937(c))

**8. Validation of ILI Results** *Does the process for validating ILI results ensure that accurate integrity assessment results are obtained?* (AR.IL.ILIVALIDATE.P) 192.921(a)(1) (192.937(c))

**9. Validation of ILI Results** *Do records demonstrate that the operator has validated ILI assessment results per their process?* (AR.IL.ILIVALIDATE.R) 192.947(g) (192.921(a)(1))

**10. Validation of ILI Results** *From observation of field activities, do the employees and vendors validate ILI assessment results per their process?* (AR.IL.ILIVALIDATE.O) 192.921(a)(1)

**11. Integration of ILI Results with other Information** *Is the process for integrating ILI results with other information adequate?* (AR.IL.ILIINTEGRATION.P) 192.917(b)

**12. Integration of ILI Results with other Information** *Do records demonstrate that the operator integrated other data/information when evaluating tool data/results?* (AR.IL.ILIINTEGRATION.R) 192.947(g) (192.917(b))

**13. ILI Acceptance Criteria** *Is the process for ILI survey acceptance criteria adequate to assure an effective assessment?* (AR.IL.ILIACCEPCRITERIA.P) 192.921(a)

**14. ILI Acceptance Criteria** *Do records indicate adequate implementation of the process for ILI survey acceptance?* (AR.IL.ILIACCEPCRITERIA.R) 192.947(g) (192.921(a))

**15. Integrity Assessments that were Not Performed as Scheduled or Within Required Timeframes** *Do records indicate that the performance of integrity assessments has been delayed and integrity assessment delays have been justified?* (AR.IL.ILIDELAY.R) 192.947(d) (192.909(a);192.909(b);192.943(a);192.943(b);190.341;192.18)

**16. Alternative Maximum Allowable Operating Pressure per 192.620 (80% SMYS Rule)?** *For pipelines operating under AMAOP, do processes implement the ILI requirements of 192.620(d)(9) and (10) for the entire segment?* (AR.IL.ILIAMAOP.P) 192.620(d)

**17. Alternative Maximum Allowable Operating Pressure per 192.620 (80% SMYS Rule)?** *For pipelines operating under AMAOP, do records indicate the ILI requirements of 192.620(d)(9) and (10) have been implemented for the entire segment?* (AR.IL.ILIAMAOP.R) 192.620(d)

**18. Compliance with ILI Procedures** *Are O&M and IMP procedural requirements for the performance of ILI assessments followed?* (AR.IL.ILIIMPLEMENT.O) 192.921(a)(1) (192.620(d);192.605(b))

**19. In-Line Inspection** *Does the process adequately account for taking required actions to address significant corrosion threats identified during in-line inspections?* (AR.IL.ILCORR.P) 192.933 (192.917(e)(5))

**20. In-Line Inspection** *Do records demonstrate that required actions are being taken to address significant corrosion threats identified during in-line inspections?* (AR.IL.ILCORR.R) 192.933 (192.917(e)(5))

## Assessment and Repair - Low Stress Reassessment

**1. Low Stress Reassessment Plan** *Is the process for performing low stress reassessment adequate?* (AR.LSR.LSRPLAN.P) 192.941(a) (192.941(b);192.941(c))

**2. Baseline Assessment** *Do records demonstrate that a baseline assessment meeting the requirements of 192.919 and 192.921 was performed prior to performing a low stress reassessment?* (AR.LSR.LSRBA.R) 192.947(d) (192.919(c);192.921(d);192.941(a))

**3. External Corrosion** *Do records demonstrate that the requirements of 192.941(b) were implemented when performing low stress reassessment for external corrosion?* (AR.LSR.LSREXTCORR.R) 192.947(d) (192.941(b))

**4. Internal Corrosion** *Do records demonstrate that the requirements of 192.941(c) were implemented when performing low stress reassessment for internal corrosion?* (AR.LSR.LSRINTCORR.R) 192.947(d) (192.941(c))

**5. LSR - Corrosion** *Does the process adequately account for taking required actions to address significant corrosion threats following a LSR?* (AR.LSR.LSRCORR.P) 192.933 (192.917(e)(5))

**6. LSR - Corrosion** *Do records demonstrate that required actions are being taken to address significant corrosion threats as required following a LSR?* (AR.LSR.LSRCORR.R) 192.933 (192.917(e)(5))

## Assessment and Repair - Other Technology

**1. Other Technology** *Has a process been developed for "other technologies" that provide an equivalent understanding of the condition of the pipe?* (AR.OT.OTPLAN.P) 192.921(a)(4)

**2. Other Technology** *Do records demonstrate that the assessments were performed in accordance with the process and vendor recommendations and that defects were identified and categorized within 180 days, if applicable?* (AR.OT.OTPLAN.R) 192.947(d) (192.921(a)(4);192.933(b))

**3. Qualification of Operator/Vendor Personnel Who Evaluate Other Technology Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate assessment results meet acceptable qualification standards?* (AR.OT.OTREVQUAL.P) 192.915(a) (192.915(b);192.921(a)(4))

**4. Qualification of Operator Personnel Who Evaluate Other Technology Results** *Do records demonstrate that operator/vendor personnel, including supervisors, who conduct assessments or review assessment results are qualified for the tasks they perform?* (AR.OT.OTREVQUAL.R) 192.947(d) (192.915(a);192.915(b))

**5. Qualification of Operator Personnel Who Evaluate Other Technology Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.OT.OTREVQUAL.O) 192.915(a) (192.915(b))

**6. Other Technology** *Were assessments conducted using "other technology" adequately performed in accordance with the OT process?* (AR.OT.OTPLAN.O) 192.921(a)(4)

**7. Other Technology - Corrosion** *Does the process adequately account for taking required actions to address significant corrosion threats identified using Other Technology?* (AR.OT.OTCORR.P) 192.933 (192.917(e)(5))

**8. Other Technology - Corrosion** *Do records demonstrate that required actions are being taken to address significant corrosion threats as required following the use of Other Technology?* (AR.OT.OTCORR.R) 192.933 (192.917(e)(5))



## Assessment and Repair - Repair Criteria (HCA)

**1. Categorization of Defects** *Do records demonstrate that all defects were properly categorized?* (AR.RC.DEFECTCAT.R) 192.947(f) (192.933(b);192.933(d))

**2. Definition of Discovery** *Does the integrity assessment process properly define discovery and the required time frame?* (AR.RC.DISCOVERY.P) 192.933(b)

**3. Definition of Discovery** *Do records demonstrate that discovery was declared in the required time frame or justification was documented?* (AR.RC.DISCOVERY.R) 192.947(f) (192.933(b))

**4. Inclusion of All IM Repair Criteria** *Does the Integrity Management Plan and/or maintenance processes include all of the actions that must be taken to address integrity issues in accordance with 192.933?* (AR.RC.IMPRC.P) 192.933(a) (192.933(c);192.933(d))

**5. Pressure Reductions Taken in Response to Remediation of Conditions** *Do records demonstrate that an acceptable pressure reduction was promptly taken for each immediate repair condition or when a repair schedule could not be met?* (AR.RC.PRESSREDUCE.R) 192.947(f) (192.933(a)(1))

**6. Prioritized Schedule** *Do records demonstrate that a prioritized schedule was developed?* (AR.RC.SCHEDULE.R) 192.947(f) (192.933(c))

**7. Adequacy of Remediation** *Do records demonstrate that the remediation specified in the prioritized schedule was adequate to ensure the integrity of the pipeline until the next scheduled reassessment?* (AR.RC.METHOD.R) 192.947(f) (192.933(a))

**8. Repair Criteria in Covered Segments** *Does the repair process cover all of the elements for making repairs in covered segments?* (AR.RC.CRITERIA.P) 192.711(b) (192.703(a);192.703(b);192.703(c);192.713(a);192.713(b))

**9. Timely Remediation** *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)? (AR.RC.SCHEDULEIMPL.R) 192.947(f) (192.933(d))*

**10. Field Inspection - Remedial Actions (IM)** *Is anomaly remediation adequate for the covered segments being observed? (AR.RC.REMEDIATION.O) 192.933(c) (192.933(a);192.933(d))*

**11. "Look Beyond" Evaluation of Significant Corrosion** *Does the process require an evaluation of all pipeline segments with similar environmental and material coating conditions as segments where corrosion that could adversely affect the integrity of the pipeline was found? (AR.RC.LOOKBEYOND.P) 192.917(e)(5)*

**12. "Look Beyond" Evaluation of Significant Corrosion** *From the review of the results of integrity assessments, were all pipeline segments evaluated with similar environmental and material coating conditions as segments where corrosion that could adversely affect the integrity of the pipeline was found? (AR.RC.LOOKBEYOND.R) 192.947(b) (192.917(e)(5);192.459)*

## Assessment and Repair - Repair Methods and Practices

**1. Safety While Making Repairs** *Does the process ensure that repairs are made in a safe manner and are made so as to prevent damage to persons and property? (AR.RMP.SAFETY.P) 192.605(b)(9) (192.713(b))*

**2. Safety While Making Repair** *Are repairs made in a safe manner and to prevent damage to persons and property? (AR.RMP.SAFETY.O) 192.605(b)(9) (192.713(b))*

**3. Prevention of Accidental Ignition** *Is there a process for preventing accidental ignition where gas presents a hazard of fire or explosion? (AR.RMP.IGNITION.P) 192.605(b)(1) (192.751(a);192.751(b);192.751(c))*

**4. Prevention of Accidental Ignition** *Do records indicate adequate steps were taken by the operator to prevent accidental ignition prior to performing work? (AR.RMP.IGNITION.R) 192.751(a) (192.751(b);192.751(c))*

**5. Prevention of Accidental Ignition** *Perform observations of selected locations to verify that adequate steps have been taken by the operator to minimize the potential for accidental ignition. (AR.RMP.IGNITION.O) 192.751(a) (192.751(b);192.751(c))*

**6. Tapping Pipelines Under Pressure** *Is the process adequate for tapping pipelines under pressure? (AR.RMP.HOTTAP.P) 192.605(b)(1) (192.627)*

**7. Tapping Pipelines Under Pressure** *From a review of selected records, were the personnel who performed pressure taps on pipelines under pressure qualified? (AR.RMP.HOTTAP.R) 192.627 (192 Subpart N)*

**8. Tapping Pipelines Under Pressure** *Were pressure taps on pipelines under pressure performed in accordance with processes by qualified personnel? (AR.RMP.HOTTAP.O) 192.627 (192 Subpart N)*

**9. Transmission Lines General Requirements for Repair Procedures** *Does the repair process capture the requirements of 192.711 for transmission lines? (AR.RMP.REPAIRREQT.P) 192.605(b)(1) (192.711(a);192.711(b);192.711(c);192.717(b)(3))*

**10. Transmission Lines Permanent Field Repair of Defects** *Is the process adequate for the permanent field repair of defects in transmission lines? (AR.RMP.FIELDREPAIRDEFECT.P) 192.605(b)(1) (192.713(a);192.713(b))*

**11. Permissible Repair Methods** *From the review of records, were all repairs performed in accordance with processes, applicable sections of 49 CFR Parts 192 and the guidance of ASME B31.8S-2004, Section 7, and the Pipeline Repair Manual, Revision 5? (AR.RMP.METHOD.R) 192.709(a) (192.713(a);192.713(b);192. 717(a);192.717(b);ASME B31.8S-2004 Section 7)*

**12. Qualification of Personnel Performing Pipeline Repair** *From the review of selected records, were personnel performing repairs, other than welding, and post repair tests qualified for the task they performed? (AR.RMP.REPAIRQUAL.R) 192.807(b) (192.805(h))*

**13. Transmission Lines Permanent Field Repair of Welds** *Is the process adequate for the permanent field repair of welds? (AR.RMP.FIELDREPAIRWELDS.P) 192.605(b) (192.715(a);192.715(b);192.715(c))*

**14. Welder Qualification** *From the review of selected records, were repairs requiring welding performed by qualified welders using qualified welding processes?* (AR.RMP.WELDERQUAL.R) 192.225(a)  
(192.225(b);192.227(a);192.227(b);192.229(a);192.229(b);192.229(c);192.229(d))

**15. Repair of Weld Defects** *From the review of records, were weld defects repaired in accordance with 192.245 and 192.715?* (AR.RMP.WELDQUAL.R) 192.245(a) (192.245(b);192.245(c);192.715(a);192.715(b);192.715(c))

**16. Inspection of Welds** *From the review of records, were welds inspected and examined in accordance with 192.241 and 192.243?* (AR.RMP.WELDINSPECT.R) 192.241(a)  
(192.241(b);192.241(c);192.243(a);192.243(b);192.243(c);192.243(d);192.243(e);192.243(f))

**17. Inspection of Welds** *Were welds inspected and examined in accordance with 192.241 and 192.243?*  
(AR.RMP.WELDINSPECT.O) 192.241(a)  
(192.241(b);192.241(c);192.243(a);192.243(b);192.243(c);192.243(d);192.243(e);192.243(f))

**18. Repair Records Pipe Condition** *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) 192.709(a) (192.709(b))

**19. Replacement Components** *From the review of records, were any components that were replaced constructed to the same or higher standards as the original component?* (AR.RMP.REPLACESTD.R) 192.713(a) (Part 192 Subpart D)

**20. Transmission Lines Permanent Field Repair of Leaks** *Is there an adequate process for the permanent field repair of leaks on transmission lines?* (AR.RMP.FIELDREPAIRLEAK.P) 192.605(b) (192.717(a);192.717(b))

**21. Transmission Lines Permanent Field Repair of Leaks** *From the review of records, did the operator properly repair leaks on transmission lines?* (AR.RMP.FIELDREPAIRLEAK.R) 192.717(a) (192.717(b))

**22. Transmission Lines Permanent Field Repair of Leaks** *Does the operator properly repair leaks on transmission lines?* (AR.RMP.FIELDREPAIRLEAK.O) 192.717(a) (192.717(b))

**23. Transmission Lines Testing of Repairs** *Is the process adequate for the testing of replacement pipe and repairs made by welding on transmission lines?* (AR.RMP.WELDTTEST.P) 192.605(b) (192.719(a);192.719(b))

**24. Transmission Lines Testing of Repairs** *From the review of records, did the operator properly test replacement pipe and repairs made by welding on transmission lines?* (AR.RMP.WELDTTEST.R) 192.719(a) (192.719(b))

**25. Transmission Lines Testing of Repairs** *Does the operator properly test replacement pipe and repairs made by welding on transmission lines?* (AR.RMP.WELDTTEST.O) 192.719(a) (192.719(b))

**26. Non-Destructive Testing of Pipeline for Cracking and/or SCC When Exposed for Repair** *Does the process require that when a pipeline segment that meets the conditions for cracking and/or possible SCC is exposed (i.e., the coating is removed), an NDE method (e.g., MPI, UT) is employed to evaluate for cracking?* (AR.RMP.CRACKNDT.P) 192.929(b) (ASME B31.8S-2004 Appendix A3.4)

**27. Non-Destructive Testing of Pipeline for Cracking and/or SCC When Exposed for Repair** *From the review of records, when a pipeline segment that meets the conditions of possible cracking and/or SCC is exposed (i.e., the coating is removed), was an NDE method (e.g., MPI, UT) employed to evaluate for cracking and/or SCC?* (AR.RMP.CRACKNDT.R) 192.947(g) (192.929(b))

## **Assessment and Repair - Stress Corrosion Cracking Direct Assessment (SCCDA)**

**1. Qualification of Operator Personnel Who Evaluate SCCDA Results** *Does the process require that operator/vendor personnel (including supervisors) who review and evaluate SCCDA assessment results meet appropriate training, experience, and qualification criteria?* (AR.SCC.SCCDAREVQUAL.P) 192.915(a) (192.915(b))

**2. Qualification of Operator Personnel Who Evaluate SCCDA Results** *Do records demonstrate that operator/vendor personnel, including supervisors, who conduct assessments or review assessment results, are qualified for the tasks they perform?* (AR.SCC.SCCDAREVQUAL.R) 192.947(e) (192.915(a);192.915(b))

**3. Qualification of Operator Personnel Who Evaluate SCCDA Results** *From the observation of selected integrity assessments, are operator and vendor personnel, including supervisors, who conduct assessments or review assessment results, qualified for the tasks they perform?* (AR.SCC.SCCDAREVQUAL.O) 192.915(a) (192.915(b))

**4. SCCDA Plan** *Is an adequate plan developed for performing SCCDA, if the conditions for SCC were present?* (AR.SCC.SCCDAPLAN.P) 192.929(b)

**5. Collect and Evaluate Data** *Do records demonstrate that data was collected and evaluated?* (AR.SCC.SCCDADATA.R) 192.947(g) (192.929(b)(1))

**6. Assessment Method (High pH SCC)** *Do records demonstrate that an assessment was performed using one of the methods specified in ASME B31.8S-2004 Appendix A3?* (AR.SCC.SCCDAMETHOD.R) 192.947(g) (192.929(b)(2))

**7. Assessment Method (High pH SCC)** *From field observations, was SCCDA performed in accordance with 192.929 and the SCCDA plan?* (AR.SCC.SCCDAMETHOD.O) 192.929

**8. Assessing for Near Neutral SCC** *From the review of the results of selected integrity assessments, was the pipeline evaluated for near neutral SCC?* (AR.SCC.SCCDANEARNEUTRAL.R) 192.947(g) (192.929(b)(2))

**9. Reassessment Interval** *From the review of the results of selected integrity assessments, did the operator determine a reassessment interval based on SCCDA results?* (AR.SCC.SCCDAREASSESSINTRVL.R) 192.947(d) (192.939(a)(3))

**10. Alternative Maximum Allowable Operating Pressure per 192.620 (80% SMYS Rule)?** *If the pipeline operates using an alternative maximum allowable operating pressure per 192.620 (80% SMYS Rule), from a review of selected records, were required SCCDA assessments performed?* (AR.SCC.SCCDAAMAOP.R) 192.620(d) (192.620(d)(9);192.620(d)(10))

**11. SCC** *Does the process adequately account for taking required actions to address significant corrosion threats found following SCCDA?* (AR.SCC.SCCCORR.P) 192.933 (192.917(e)(5))

**12. SCC** Do records demonstrate that required actions are being taken to address significant corrosion threats as required following SCCDA? (AR.SCC.SCCCORR.R) 192.933 (192.917(e)(5))

## Assessment and Repair - Special Permits

**1. Special Permits** If the pipeline operates under a special permit have the processes been modified to incorporate the requirements of the permit for required ILI assessments performed? (AR.SP.ILISP.P) 190.341(d)

**2. Special Permits** If the pipeline operates under a special permit, from a review of selected records, were required ILI assessments performed? (AR.SP.ILISP.R) 190.341(d)

**3. Special Permits** If the pipeline operates under a special permit have the processes been modified to incorporate the requirements of the permit for required repairs? (AR.SP.REPAIRSP.P) 190.341(d)

**4. Special Permits** If the pipeline operates under a special permit, from a review of selected records, were required repairs performed? (AR.SP.REPAIRSP.R) 190.341(d)

## CRM, SCADA, and Leak Detection - CRM General

**1. Control Room Management Criteria** Do procedures adequately address the process and criteria that determine which facilities are determined to be control rooms? (CR.CRMGEN.CRMCRITERIA.P) 192.631(a)(2)

**2. Control Room Management** Are CRM procedures formalized and controlled? (CR.CRMGEN.CRMMGMT.P) 192.631(a)(2)

**3. Control Room Management** *Were procedures approved, in place, and implemented on or before the regulatory deadline?* (CR.CRMGEN.CRMIMPLEMENT.R) 192.631(a)(2)

**4. Control Room Management** *Are procedures readily available to controllers in the control room?* (CR.CRMGEN.CRMPROCLOCATION.O) 192.631(a)(2)

## **CRM, SCADA, and Leak Detection - CRM Roles and Responsibilities**

**1. Roles and Responsibilities** *Are there clear processes to describe each controller's physical domain of responsibility for pipelines and other facility assets?* (CR.CRMRR.RESPONSIBLE.P) 192.631(b)

**2. Roles and Responsibilities** *Are there provisions in place to assure that only qualified individuals may assume control at any console/desk?* (CR.CRMRR.QUALCONTROL.P) 192.631(b)

**3. Roles and Responsibilities** *If the physical domain of responsibility periodically changes, has a clear process been established to describe the conditions for when such a change occurs?* (CR.CRMRR.DOMAINCHANGE.P) 192.631(b)

**4. Controller Authority (Abnormal Operations)** *Have processes been established to define the controllers' authority and responsibilities when an abnormal operating condition is detected?* (CR.CRMRR.AUTHORITYABNORMAL.P) 192.631(b)(2)

**5. Roles and Responsibilities** *Do processes address a controller's role during temporary impromptu (unplanned) changes in controller responsibilities?* (CR.CRMRR.RESPCHANGE.P) 192.631(b)

**6. Roles and Responsibilities** *Do the defined roles and responsibilities require controllers to stay at the console to verify all SCADA commands that have been initiated are fulfilled, and that commands given via verbal communications are acknowledged before leaving the console for any reason?* (CR.CRMRR.COMMANDVERIFY.P) 192.631(b)

**7. Overpressure Limits** *Are controllers aware of the current MAOPs of all pipeline segments for which they are responsible, and have they been assigned the responsibility to maintain those pipelines at or below the MAOP?* (CR.CRMRR.PRESSLIMITS.O) 192.631(b)(2) (192.619(a);192.631(e)(1))

**8. Controller Authority (Emergency Operations)** *Do processes define the controllers' authority and responsibility to make decisions, take actions, and communicate with others upon being notified of, or upon detection of, and during, an emergency or if a leak or rupture is suspected?* (CR.CRMRR.AUTHORITYEMERGENCY.P) 192.631(b)(3)

**9. Control Center Evacuation** *Do processes specifically address the controller's responsibilities in the event the control room must be evacuated?* (CR.CRMRR.EVACUATION.P) 192.631(b)(3)

**10. Communication Failure** *Do processes specifically address the controller's responsibilities in the event of a SCADA system or data communications system failure impacting large sections of the controller's domain of responsibility?* (CR.CRMRR.COMMSYSFAIL.P) 192.631(b)(3)

**11. Shift Change Process** *Have processes been established for the hand-over of responsibility that specify the type of information to be communicated to the oncoming shift?* (CR.CRMRR.HANDOVER.P) 192.631(b)(4) (192.631(c)(5))

**12. Shift Change Process** *Do observations indicate adequate hand-over of responsibility to the oncoming shift?* (CR.CRMRR.HANDOVER.O) 192.631(b)(4) (192.631(c)(5))

**13. Shift Change Process - Documentation** *Do processes require that records document the hand-over of responsibility, document the time the actual hand-over of responsibility occurs, and the key information and topics that were communicated during the hand-over?* (CR.CRMRR.HANDOVERDOC.P) 192.631(b)(4) (192.631(c)(5))

**14. Shift Change Process - Documentation** *Are there records that document the hand-over of responsibility, document the time the actual hand-over of responsibility occurs, and the key information and topics that were communicated during the hand-over?* (CR.CRMRR.HANDOVERDOC.R) 192.631(b)(4) (192.631(c)(5))

**15. Shift Change Process - Overlap** *Do processes require the controllers to discuss recent and impending important activities ensuring adequate overlap?* (CR.CRMRR.HANDOVEROVERLAP.P) 192.631(b)(4)

**16. Shift Change Process - Handover Alternative** *When a controller is unable to continue or assume responsibility for any reason, do the shift hand-over processes include alternative shift hand-over actions that specifically address this situation? (CR.CRMRR.HANDOVERALTERNATIVE.P) 192.631(b)(4)*

**17. Shift Change Process - Unattended Consoles** *Has the operator established an adequate process for occasions when the console is left temporarily unattended for any reason? (CR.CRMRR.UNATTENDCONSOLE.P) 192.631(b)(4)*

**18. Shift Change Process - Console Coverage** *Do processes maintain adequate console coverage during shift hand-over? (CR.CRMRR.CONSOLECOVERAGE.P) 192.631(b)(4)*

**19. Authority to Supersede Controller Action Disallowed - Controllers** *Do processes disallow others to have authority to direct or supersede the specific technical actions of a controller? (CR.CRMRR.OTHERAUTHORITYDISALLOW.P) 192.631(b)(5)*

**20. Authority to Supersede Controller Action Disallowed - Controllers** *Do records indicate that the policy disallowing others to have authority to direct or supersede the specific technical actions of a controller has been communicated to controllers and others? (CR.CRMRR.OTHERAUTHORITYDISALLOW.R) 192.631(b)(5)*

**21. Authority to Supersede Controller Action Disallowed - Controllers** *Are controllers aware of, and can reference, processes that disallow others to have authority to direct or supersede the specific technical actions of a controller? (CR.CRMRR.OTHERAUTHORITYDISALLOW.O) 192.631(b)(5)*

**22. Others with Authority Qualification - Controllers** *Does the process result in identification of required qualification elements for those authorized to direct or supersede the technical actions of a controller that are sufficient for those individuals to understand the implications of the scope of potential actions? (CR.CRMRR.OTHERAUTHORITYQUAL.P) 192.631(b)(5)*

**23. Others with Authority Qualification - Controllers** *Do records indicate that others given authority to direct or supersede the specific technical actions of a controller were qualified? (CR.CRMRR.OTHERAUTHORITYQUAL.R) 192.631(b)(5)*

**24. Others with Authority Implementation - Controllers** *Is the process defined with respect to the details of how those authorized to direct or supersede the technical actions of a controller are to implement their authority?* (CR.CRMRR.OTHERAUTHORITYIMPLEMENT.P) 192.631(b)(5)

**25. Others with Authority List - Controllers** *Is a list of individuals with authority to direct or supersede the technical actions of a controller readily available to controllers?* (CR.CRMRR.OTHERAUTHORITYLIST.R) 192.631(b)(5)

**26. Others with Authority Implementation - Controllers** *Do records adequately document occurrences of when others authorized to direct or supersede the technical actions of a controller have done so?* (CR.CRMRR.OTHERAUTHORITYIMPLEMENT.R) 192.631(b)(5)

**27. Others with Authority Implementation - Controllers** *Do others authorized to direct or supersede the technical actions of a controller demonstrate an understanding of the process to implement this authority?* (CR.CRMRR.OTHERAUTHORITYIMPLEMENT.O) 192.631(b)(5)

## **CRM, SCADA, and Leak Detection - Supervisory Control and Data Acquisition**

**1. Adequate Information (API 1165 Compliance)** *Do processes clearly define the types of changes to the SCADA system(s) that constitute additions, expansions, or replacements under the meaning of the CRM rule?* (CR.SCADA.SYSTEMMOC.P) 192.631(c)(1)

**2. SCADA Displays** *Are there written processes to implement the API RP 1165 display standards to the SCADA systems that have been added, expanded, or replaced since August 1, 2012?* (CR.SCADA.DISPLAYCONFIG.P) 192.631(c)(1)

**3. SCADA API RP 1165 Human Factors** *Has section 4 of API RP 1165 regarding human factors engineering been implemented?* (CR.SCADA.1165HUMANFACTORS.O) 192.631(c)(1)

**4. SCADA Display Objects** *Has section 8 of API RP 1165 regarding display object characteristics been implemented?*  
(CR.SCADA.DISPLAYOBJECTS.O) 192.631(c)(1)

**5. SCADA Display Dynamics** *Has section 9 of API RP 1165 regarding display object dynamics been implemented?*  
(CR.SCADA.DISPLAYDYNAMICS.R) 192.631(c)(1)

**6. SCADA Administration** *Have applicable paragraphs of section 11 of API RP 1165 administration been implemented?*  
(CR.SCADA.ADMINISTRATION.R) 192.631(c)(1)

**7. SCADA Impracticality** *If any/all applicable paragraph(s) of API RP 1165 have not been implemented, has it been demonstrated and documented that the unimplemented provisions are impractical for the SCADA system used?*  
(CR.SCADA.1165IMPRACTICAL.R) 192.631(c)(1)

**8. Set Points** *Does the process adequately define safety-related points?* (CR.SCADA.SETPOINT.P) 192.631(c)(2)

**9. Set Points** *Do records indicate safety-related points have been adequately implemented?* (CR.SCADA.SETPOINT.R) 192.631(c)(2)

**10. Point-to-Point Verification** *Are there adequate processes to define and identify the circumstances which require a point-to-point verification?* (CR.SCADA.POINTVERIFY.P) 192.631(c)(2)

**11. Point-to-Point Verification** *Have required point-to-point verifications been performed?* (CR.SCADA.POINTVERIFY.R) 192.631(c)(2)

**12. Point-to-Point Verification Extent** *Are there adequate processes for the thoroughness of the point-to-point verification?* (CR.SCADA.POINTVERIFYEXTENT.P) 192.631(c)(2)

**13. Point-to-Point Verification Extent** *Do records demonstrate adequate thoroughness of the point-to-point verification?* (CR.SCADA.POINTVERIFYEXTENT.R) 192.631(c)(2)

**14. Point-to-Point Verification Interval** *Is there an adequate process for defining when the point-to-point verification must be completed?* (CR.SCADA.POINTVERFIYINTVL.P) 192.631(c)(2)

**15. Point-to-Point Verification Interval** *Do records indicate the point-to-point verification has been completed at the required intervals?* (CR.SCADA.POINTVERFIYINTVL.R) 192.631(c)(2)

**16. Point-to-Point Verification** *Are point-to-point verifications performed adequately when required?* (CR.SCADA.POINTVERIFY.O) 192.631(c)(2)

**17. Internal Communication Plan** *Has an internal communication plan been established and implemented that is adequate to manually operate the pipeline during a SCADA failure/outage?* (CR.SCADA.COMMPLAN.P) 192.631(c)(3)

**18. Internal Communication Plan** *Has the internal communication plan been tested and verified for manual operation of the pipeline safely at least once each calendar year but at intervals not exceeding 15 months?* (CR.SCADA.COMMPLAN.R) 192.631(c)(3)

**19. Backup SCADA System** *Is there a backup SCADA system?* (CR.SCADA.BACKUPSCADA.O) 192.631(c)

**20. Backup SCADA Development** *Has the use of the backup SCADA system for development work been defined?* (CR.SCADA.BACKUPSCADADEV.P) 192.631(c)(4)

**21. Backup SCADA Testing** *Is the backup SCADA system required to be tested at least once each calendar year at intervals not to exceed 15 months?* (CR.SCADA.BACKUPSCADATEST.P) 192.631(c)(4)

- 22. Backup SCADA Testing** *Is the backup SCADA system tested at least once each calendar year at intervals not to exceed 15 months? (CR.SCADA.BACKUPSCADATEST.R) 192.631(c)(4)*
- 23. Backup SCADA Verification** *Is testing required to verify adequate processes are in place for decision-making and internal communications to successfully implement a transition from primary SCADA to backup SCADA, and back to primary SCADA? (CR.SCADA.BACKUPSCADAVERIFY.P) 192.631(c)(4)*
- 24. Backup SCADA Verification** *Does the testing verify that there are adequate processes in place for decision-making and internal communications to successfully implement a transition from primary SCADA to backup SCADA, and back to primary SCADA? (CR.SCADA.BACKUPSCADAVERIFY.R) 192.631(c)(4)*
- 25. Backup SCADA Adequacy** *If the back-up SCADA system is not designed to handle all the functionality of the main SCADA system, does the testing determine whether there are adequate procedures in place to account for displaced and/or different available functions during back-up operations? (CR.SCADA.BACKUPSCADA Adequacy.R) 192.631(c)(4)*
- 26. Backup SCADA Transfer** *Do processes adequately address and test the logistics of transferring control to a backup control room? (CR.SCADA.BACKUPSCADATRANSFER.P) 192.631(c)(4)*
- 27. Backup SCADA Return to Primary** *Do procedures adequately address and test the logistics of returning operations back to the primary control room? (CR.SCADA.BACKUPSCADARETURN.P) 192.631(c)(4)*
- 28. Backup SCADA Testing** *Is a representative sampling of critical functions in the back-up SCADA system being tested to ensure proper operation in the event the backup system is needed? (CR.SCADA.BACKUPSCADAFUNCTIONS.R) 192.631(c)(4)*
- 29. Overpressure Protection Features** *Are processes adequate for inspection and test of each pressure relieving device in a compressor station, including periodic operation to determine opening at the correct set pressure? (CR.SCADA.CMPPRESSRELIEFTEST.P) 192.731(a) (192.731(b);192.731(c);192.631(b))*
- 30. Overpressure Protection Features** *Do inspection and test records for each pressure relieving device in a compressor station indicate it was operated periodically to determine that it opens at the correct set pressure? (CR.SCADA.CMPPRESSRELIEFTEST.R) 192.731(a)*

**31. Overpressure Protection Features** *Are there procedures for inspection and test of each pressure relieving device at pressure limiting stations?* (CR.SCADA.PRESSRELIEFTEST.P) 192.739(a) (192.631(b))

**32. Overpressure Protection Features** *Do records indicate adequate inspection and testing for each pressure relieving device in a pressure limiting station?* (CR.SCADA.PRESSRELIEFTEST.R) 192.739(a) (192.631(b))

**33. Valve Maintenance** *If the valve is monitored by SCADA, does the process account for how valve testing is coordinated with the controller?* (CR.SCADA.VALVETEST.P) 192.745(a) (192.631(b))

**34. Valve Maintenance** *If SCADA is used to operate valves, do records indicate the SCADA system was adequately involved in the testing to ensure valve operation?* (CR.SCADA.VALVETEST.R) 192.709(c) (192.745(a))

## **CRM, SCADA, and Leak Detection - Fatigue Management**

**1. Fatigue Mitigation** *Does the fatigue mitigation process or procedures (plan) identify operator-specific fatigue risks?* (CR.CRMFM.FATIGUEMITIGATION.P) 192.631(d)

**2. Fatigue Risk Reduction** *Does the fatigue mitigation plan adequately address how the program reduces the risk associated with controller fatigue?* (CR.CRMFM.FATIGUERISKS.P) 192.631(d)

**3. Fatigue Quantification** *Do processes require that the potential contribution of controller fatigue to incidents and accidents be quantified during investigations?* (CR.CRMFM.FATIGUEQUANTIFY.P) 192.631(d)

**4. Fatigue Mitigation Manager** *Is there a designated fatigue risk manager who is responsible and accountable for managing fatigue risk and fatigue countermeasures, and someone (perhaps the same person) that is authorized to review and approve HOS emergency deviations?* (CR.CRMFM.FATIGUEMANAGER.P) 192.631(d)

**5. Scheduled Shift Length** *Is the scheduled shift length less than or equal to 12 hours (not including shift hand-over) or is there a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?* (CR.CRMFM.SHIFTLENGTH.R) 192.631(d)(1)

**6. Establishing Shift Length** *Does the operator factor in all time the individual is working for the company when establishing shift lengths and schedule rotations or is there a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?* (CR.CRMFM.SHIFTLENGTHTIME.R) 192.631(d)(1)

**7. Scheduled Time Off Between Shifts** *Are all scheduled periods of time off at least one hour longer than 8 hours plus commute time or is there a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?* (CR.CRMFM.SCHEDULEDTIMEOFF.R) 192.631(d)(1)

**8. On Call Controllers** *For controllers who are on call, do processes minimize interrupting the required 8 hours of continuous sleep or require a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?* (CR.CRMFM.ONCALLCONTROLLER.P) 192.631(d)

**9. On Call Controllers** *For controllers who are on call, does the operator minimize interrupting the required 8 hours of continuous sleep or is there a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?* (CR.CRMFM.ONCALLCONTROLLER.R) 192.631(d)(1)

**10. Maximum Hours of Service** *Do processes limit the maximum HOS limit in any sliding 7-day period to no more than 65 hours or is there a documented technical basis to show a reduction of the risk associated with controller fatigue?* (CR.CRMFM.MAXHOS.P) 192.631(d)(4)

**11. Minimum Time Off After HOS Limit Reached** *After reaching the HOS limit in any sliding 7-day period, is the minimum time off at least 35 hours or is there a documented technical basis to show a reduction of the risk associated with controller fatigue?* (CR.CRMFM.MINTIMEOFF.P) 192.631(d)(4)

**12. Documented Time Schedule** *Is there a formal system to document all scheduled and unscheduled HOS worked, including overtime and time spent performing duties other than control room duties?* (CR.CRMFM.DOCSCHEDULE.P) 192.631(d)(4)

**13. Time Off Following Successive Days Worked** *For normal business hour type operations (i.e., five days per week), are no more than five days worked in succession before at least two days off?* (CR.CRMFM.DAYSOFF.P) 192.631(d)(4)

**14. Day Only Work Hours** *For normal business hour type operations (i.e., five days per week), do records indicate shift start times no earlier than 6:00 a.m. and shift end times no later than 7:00 p.m.?* (CR.CRMFM.WORKHOURS.R) 192.631(d)(4)

**15. Fatigue Countermeasures** *For shifts longer than 8 hours, have specific fatigue countermeasures been implemented for the ninth and beyond hours?* (CR.CRMFM.FATIGUECOUNTERMEASURES.P) 192.631(d)(4)

**16. Daily HOS Limit** *Do processes limit the daily maximum HOS limit no more than 14 hours in any sliding 24-hour period?* (CR.CRMFM.DAILYHOSLIMIT.P) 192.631(d)(4)

**17. Number of Qualified Controllers** *Do operations include a sufficient number of qualified controllers?* (CR.CRMFM.CONTROLLERNUMBERS.O) 192.631(d)

**18. Off Duty Hours When Limits Reached** *Do processes ensure that controllers are provided with at least thirty-five (35) continuous off-duty hours when limits are reached following the most recent 35-hour (minimum) off-duty rest period or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?* (CR.CRMFM.OFFDUTYHOURS.P) 192.631(d)(4)

**19. Shift Holdover** *Does the shift holdover process conform to shift holdover guidelines or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?* (CR.CRMFM.SHIFTHOLDOVER.P) 192.631(d)(4)

**20. Specific Fatigue Countermeasures During Times of Heightened Risk** *Do processes require specific fatigue countermeasures during applicable time periods, or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?* (CR.CRMFM.SPECIFICCOUNTERMEASURES.P) 192.631(d)(4)

**21. Deviations from HOS Limits** *Is there a formal process for approving deviations from the maximum HOS limits?* (CR.CRMFM.HOSDEVIATIONS.P) 192.631(d)(4)

**22. Fatigue Education** *Does the program require that fatigue education/training is required for all controllers and control room supervisors?* (CR.CRMFM.FATIGUEEDUCATE.P) 192.631(d)(2) (192.631(d)(3))

**23. Fatigue Education** *Is periodic fatigue education/training documented for all controllers and control room supervisors?* (CR.CRMFM.FATIGUEEDUCATE.R) 192.631(d)(2) (192.631(d)(3))

**24. Review of Fatigue Education/Training Program Effectiveness** *Do processes require that the effectiveness of the fatigue education/training program be reviewed at least once each calendar year, not to exceed 15 months?* (CR.CRMFM.FATIGUEREVIEW.P) 192.631(d)(2) (192.631(d)(3);192.605(a))

**25. Fatigue Mitigation Strategies** *Does fatigue education address fatigue mitigation strategies (countermeasures)?* (CR.CRMFM.FATIGUESTATEGY.P) 192.631(d)(2)

**26. Off-Duty Activity Impact on Fatigue** *Does fatigue education address how off-duty activities contribute to fatigue?* (CR.CRMFM.OFFDUTY.P) 192.631(d)(2)

**27. Fatigue Training Content** *Is the content of fatigue training adequate for training controllers and supervisors to recognize the effects of fatigue?* (CR.CRMFM.FATIGUECONTENT.P) 192.631(d)(3)

**28. Fatigue Training Content** *Has controller and supervisor training to recognize the effects of fatigue been documented?* (CR.CRMFM.FATIGUECONTENT.R) 192.631(d)(3)

## **CRM, SCADA, and Leak Detection - Alarm Management**

**1. Alarm Procedures** *Is the alarm management plan a formal process that specifically identifies critical topical areas included in the program?* (CR.CRMAM.ALARM.P) 192.631(e)

**2. Alarm Malfunction** *Is there a process to identify and correct inaccurate or malfunctioning alarms?*  
(CR.CRMAM.ALARMMALFUNCTION.P) 192.631(e)(1)

**3. Alarm Review** *Does the review of safety-related alarms account for different alarm designs and all alarm types/priorities?*  
(CR.CRMAM.ALARMREVIEW.P) 192.631(e)(1)

**4. Controller SCADA Performance** *Does the review of safety-related alarms account for console differences that could affect individual-specific controller qualification and performance?* (CR.CRMAM.CONTROLLERPERFORMANCE.P) 192.631(h)  
(192.631(e)(1))

**5. Managing Stale or Unreliable Data** *Does the review of safety-related alarms include specific procedures and practices for managing stale or unreliable data?* (CR.CRMAM.STALEDATA.P) 192.631(e)(1)

**6. Monthly Analysis of SCADA Data** *Do processes require the monthly identification, recording, review, and analysis of points that have been taken off scan, have had alarms inhibited, generated false alarms, or that have had forced or manual values for periods of time exceeding that required for associated maintenance or operating activities?*  
(CR.CRMAM.MONTHLYANALYSIS.P) 192.631(e)(2)

**7. Correction of SCADA Problems** *Does the alarm management plan include a process for promptly correcting identified problems and for returning these points to service?* (CR.CRMAM.PROBLEMCORRECTION.P) 192.631(e)(2)

**8. Alarm Point Verification** *Do records verify that monthly reviews and analysis of alarm points have been performed?*  
(CR.CRMAM.ALARMVERIFY.R) 192.631(e)(2)

**9. Alarm Setpoint Process** *Is there a formal process to determine the correct alarm setpoint values and alarm descriptions?* (CR.CRMAM.ALARMSETPOINTS.P) 192.631(e)(3)

**10. Controls on SCADA Settings** *Have procedures been established to clearly address how and to what degree controllers can change alarm limits or setpoints, or inhibit alarms, or take points off-scan?* (CR.CRMAM.SETTINGCONTROL.P) 192.631(e)(3)

**11. Alarm Value Verification** *Do records demonstrate verification of correct safety-related alarm set-point values and alarm descriptors when associated field instruments are calibrated or changed and at least once each calendar year, but at intervals not to exceed 15 months?* (CR.CRMAM.ALARMVALUEVERIFY.R) 192.631(e)(3)

**12. Alarm Management Plan Review** *Are there processes to review the alarm management plan at least once each calendar year, but at intervals not exceeding 15 months, in order to determine the effectiveness of the plan?* (CR.CRMAM.PLANREVIEW.P) 192.631(e)(4)

**13. Alarm Management Plan Review** *Do records indicate review of the alarm management plan at least once each calendar year, but at intervals not exceeding 15 months, in order to determine the effectiveness of the plan?* (CR.CRMAM.PLANREVIEW.R) 192.631(e)(4)

**14. Measuring Work Load** *Does the CRM program have a means of identifying and measuring the work load (content and volume of general activity) being directed to an individual controller?* (CR.CRMAM.WORKLOAD.P) 192.631(e)(5)

**15. Monitoring Work Load** *Is the process of monitoring and analyzing general activity comprehensive?* (CR.CRMAM.WORKLOADMONITORING.P) 192.631(e)(5)

**16. Controller Reaction to Incoming Alarms** *Does the process have a means of determining that the controller has sufficient time to analyze and react to incoming alarms?* (CR.CRMAM.CONTROLLERREACTION.P) 192.631(e)(5)

**17. Analysis of Controller Performance** *Has an analysis been performed to determine if controller(s) performance is currently adequate?* (CR.CRMAM.PERFORMANCEANALYSIS.R) 192.631(e)(5)

**18. Alarm Deficiency Resolution** *Is there a process to address how deficiencies found in implementing 192.631(e)(1) through 192.631(e)(5) will be resolved?* (CR.CRMAM.DEFICIENCIES.P) 192.631(e)(6)

**19. Alarm Management Deficiencies** *Do records indicate deficiencies found in implementing 192.631(e)(1) through 192.631(e)(5) have been resolved?* (CR.CRMAM.DEFICIENCIES.R) 192.631(e)(6)

## CRM, SCADA, and Leak Detection - Change Management

**1. Field Equipment Changes** *Is there a process to assure changes in field equipment that could affect control room operations are coordinated with the control room personnel?* (CR.CRMCMGT.EQUIPMENTCHANGES.P) 192.631(f)(1)

**2. Controller Participation in System Changes** *Are control room representative(s) required to participate in meetings where changes that could directly or indirectly affect the hydraulic performance or configuration of the pipeline (including routine maintenance and repairs) are being considered, designed and implemented?* (CR.CRMCMGT.CONTROLLERPARTICIPATE.P) 192.631(f)(1) (192.631(f)(3))

**3. Controller Participation in System Changes** *Do records indicate that control room representative(s) participate in meetings where changes that could directly or indirectly affect the hydraulic performance or configuration of the pipeline (including routine maintenance and repairs) are being considered, designed and implemented?* (CR.CRMCMGT.CONTROLLERPARTICIPATE.R) 192.631(f)(1) (192.631(f)(3))

**4. Emergency Contact with Control Room** *Is there a process requiring field personnel and SCADA support personnel to contact the control room when emergency conditions exist?* (CR.CRMCMGT.EMERGENCYCONTACT.P) 192.631(f)(2)

**5. Coordination of Field Changes** *Does the process require field personnel and SCADA support personnel to contact the control room when making field changes (for example, moving a valve) that affect control room operations?* (CR.CRMCMGT.FIELDCONTACT.P) 192.631(f)(2)

**6. Coordination of Field Changes** *Do records indicate field personnel and SCADA support personnel contacted the control room when making field changes (for example, moving a valve) that affect control room operations?* (CR.CRMCMGT.FIELDCHANGES.R) 192.631(f)(2)

## CRM, SCADA, and Leak Detection - Operating Experience

**1. Reportable Incident (Review)** *Is there a formal, structured approach for reviewing and critiquing reportable events to identify lessons learned?* (CR.CRMEXP.REPORTABLEINCIDENTREVIEW.P) 192.631(g)(1)

**2. Reportable Incident (Review)** *Do records indicate reviews of reportable events specifically analyzed all contributing factors to determine if control room actions contributed to the event, and corrected any deficiencies?* (CR.CRMEXP.REPORTABLEINCIDENTREVIEW.R) 192.631(g)(1)

**3. Lessons Learned** *Does the program require training on lessons learned from a broad range of events (reportable incidents/accidents, near misses, leaks, operational and maintenance errors, etc.), even though the control room may not have been at fault?* (CR.CRMEXP.LESSONSLEARNED.P) 192.631(g)(2) (192.631(b)(5))

**4. Lessons Learned** *Has operating experience review training been conducted on lessons learned from a broad range of events (reportable incidents/accidents, near misses, leaks, operational and maintenance errors, etc.)?* (CR.CRMEXP.LESSONSLEARNED.R) 192.631(g)(2) (192.631(b)(5))

## CRM, SCADA, and Leak Detection - Training

**1. Controller Training Program** *Has a controller training program been established to provide training for each controller to carry out their roles and responsibilities?* (CR.CRMTRAIN.CONTROLLERTRAIN.P) 192.631(h)

**2. Controller Training Program** *Has a controller training program been implemented to provide training for each controller to carry out their roles and responsibilities?* (CR.CRMTRAIN.CONTROLLERTRAIN.R) 192.631(h)

**3. Training Program Review** *Have processes been established to review the controller training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months?* (CR.CRMTRAIN.TRAININGREVIEW.P) 192.631(h)

**4. Training Program Review** *Have processes been implemented to review the controller training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months?* (CR.CRMTRAIN.TRAININGREVIEW.R) 192.631(h)

**5. Content of Training Program** *Does training content address all required material, including training each controller to carry out the roles and responsibilities that were defined by the operator?* (CR.CRMTRAIN.TRAININGCONTENT.R) 192.631(h)

**6. List of AOCs for Training** *Has a list of the abnormal operating conditions that are likely to occur simultaneously or in sequence been established?* (CR.CRMTRAIN.AOCLIST.R) 192.631(h)(1)

**7. Controller Training and Qualification** *Does the training program provide controller training on recognizing and responding to abnormal operating conditions that are likely to occur simultaneously or in sequence?* (CR.CRMTRAIN.TRAININGABNORMAL.P) 192.631(h)(1)

**8. Controller Training and Qualification** *Do records indicate the training program used a simulator or tabletop exercises to train controllers how to recognize and respond to abnormal operating conditions?* (CR.CRMTRAIN.TRAINING.R) 192.631(h)(2)

**9. Controller Training and Qualification** *Does the training program use a simulator or tabletop exercises to train controllers how to recognize and respond to abnormal operating conditions?* (CR.CRMTRAIN.TRAINING.O) 192.631(h)(2)

**10. Communication Training** *Does the CRM program train controllers on their responsibilities for communication under the operator's emergency response procedures?* (CR.CRMTRAIN.COMMUNICATIONTRAINING.P) 192.631(h)(3)

**11. Working Knowledge of Pipeline System** *Does the training program provide controllers a working knowledge of the pipeline system, especially during the development of abnormal operating conditions?* (CR.CRMTRAIN.SYSKNOWLEDGE.P) 192.631(h)(4)

**12. List of Infrequently Used Pipeline Setups** *Has a list of pipeline operating setups that are periodically (but infrequently) used been established?* (CR.CRMTRAIN.INFREQOPSLIST.R) 192.631(h)(5)

**13. Review of Procedures Prior to Use** *Do processes specify that, for pipeline operating set-ups that are periodically (but infrequently) used, the controllers must be provided an opportunity to review relevant procedures in advance of their use?* (CR.CRMTRAIN.INFREQOPSREVIEW.P) 192.631(h)(5)

**14. Control Room Team Training - Personnel** *Do processes establish who, regardless of location, operationally collaborates with control room personnel?* (CR.CRMTRAIN.TEAMTRAINPERSONNEL.P) 192.631(h)(6)

**15. Control Room Team Training - Frequency** *Do processes define the frequency of new and recurring team training?* (CR.CRMTRAIN.TEAMTRAINFREQ.P) 192.631(h)(6)

**16. Control Room Team Training - Completeness** *Do processes address all operational modes and operational collaboration/control?* (CR.CRMTRAIN.TEAMTRAINCOMPLETE.P) 192.631(h)(6)

**17. Control Room Team Training - Operational Experience** *Do processes include incorporation of lessons learned from actual historical events and other oil-gas industry events?* (CR.CRMTRAIN.TEAMTRAINEXPERIENCE.P) 192.631(h)(6)

**18. Control Room Team Training - Exercises** *Do records indicate that training exercises were adequate and involved at least one qualified controller?* (CR.CRMTRAIN.TEAMTRAINEXERCISE.R) 192.631(h)(6)

**19. Control Room Team Training - Exercises** *Does implementation of a control room team exercise demonstrate performance in accordance with regulatory and process requirements?* (CR.CRMTRAIN.TEAMTRAINEXERCISE.O) 192.631(h)(6)

**20. Control Room Team Training - Identified Individuals** *Do records demonstrate that individuals identified as of January 23, 2018 received team training by January 23, 2019?* (CR.CRMTRAIN.TEAMTRAINIDENTINDIVIDUAL.R) 192.631(h)(6)

## **CRM, SCADA, and Leak Detection - Compliance Validation and Deviations**

**1. Submittal of Procedures** *Are there adequate processes to assure that the operator is responsive to requests from applicable agencies to submit their CRM procedures?* (CR.CRMCOMP.SUBMITPROCEDURES.P) 192.631(i)

**2. Record of Procedure Submittals** *Has the operator been responsive to requests from applicable agencies to submit their CRM procedures?* (CR.CRMCOMP.SUBMITPROCEDURES.R) 192.631(i)

**3. CRM Coordinator** *Is there an individual that is responsible and accountable for compliance with requests from PHMSA or other applicable agencies?* (CR.CRMCOMP.CRMCOORDINATOR.R) 192.631(i)

**4. CRM Records Management** *Are records management processes adequate to assure records are sufficient to demonstrate compliance with the CRM rule?* (CR.CRMCOMP.RECORDS.P) 192.631(j)(1)

**5. CRM Records** *Are records sufficient to demonstrate compliance with the CRM rule?* (CR.CRMCOMP.RECORDS.R) 192.631(j)(1)

**6. Electronic Records** *Are electronic records properly stored, safeguarded, and readily retrievable?* (CR.CRMCOMP.ELECTRONICRECORDS.R) 192.631(j)(1)

**7. CRM Deviations** *Are there processes to demonstrate and provide a documented record that every deviation from any CRM rule requirement was necessary for safe operation?* (CR.CRMCOMP.DEVIATIONS.P) 192.631(j)(2)

**8. Deviation Records** *Were all deviations documented in a way that demonstrates they were necessary for safe operation?* (CR.CRMCOMP.DEVIATIONS.R) 192.631(j)(2)

## CRM, SCADA, and Leak Detection - Leak Detection

**1. Leak Detection Measures** *Do records demonstrate the operator has identified, considered, or implemented leak detection measures to mitigate the consequences of a pipeline failure?* (CR.LD.LDSYS.R) 192.631(g)

**2. Facility Leak Detection** *Does the process require continuing surveillance of facilities to determine and take appropriate action concerning failures/leakage history?* (CR.LD.FACILITY.P) 192.605(b)(1) (192.613(a);192.631(b))

**3. Facility Leak Detection** *Do records indicate continuing surveillance of facilities to determine and take appropriate action concerning failures/leakage history?* (CR.LD.FACILITY.R) 192.605(b)(1) (192.613(a);192.631(b))

## Design and Construction - Compressor Station Construction

**1. Compressor Stations - Storage of Combustible Materials** *Are flammable/combustible materials stored as required and aboveground oil or gasoline storage tanks installed at compressor stations protected in accordance with NFPA No. 30, as required by 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.O) 192.735(a) (192.735(b))

**2. Compressor Stations - Storage of Combustible Materials** *Does the process include requirements for the storage of flammable/combustible materials and specify that aboveground oil or gasoline storage tanks being installed at compressor stations be protected in accordance with NFPA No. 30, as required of 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.P) 192.303 (192.735(a);192.735(b))

**3. Compressor Stations - Storage of Combustible Materials** *As applicable to the project, are flammable/combustible materials stored as required and aboveground oil or gasoline storage tanks installed at compressor stations protected in accordance with NFPA No. 30, as required by 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.R) 192.735(a) (192.735(b))

**4. Compressor Stations Gas Detection** *Does the process specify that compressor buildings have a fixed gas detection and alarm system?* (DC.COCMP.CMPGASDETECT.P) 192.303 (192.736(a);192.736(b))

**5. Compressor Stations Gas Detection** *Are gas detection and alarm systems being installed in applicable compressor buildings?* (DC.COCMP.CMPGASDETECT.R) 192.736(a) (192.736(b))

**6. Compressor Stations Gas Detection** *Are gas detection and alarm systems installed in applicable compressor buildings?* (DC.COCMP.CMPGASDETECT.O) 192.736(a) (192.736(b))

## Design and Construction - Construction

**1. Casings** *Does the process require railroad or highway casings to be in accordance with the requirements of 192.323?* (DC.CO.CASING.P) 192.303 (192.323(a);192.323(b);192.323(c);192.323(d);192.467(a);192.467(b))

**2. Casings** *Do field observations confirm railroad or highway casings are being installed as designed and specified, and in accordance with 192.323?* (DC.CO.CASING.O) 192.323 (192.467(a);192.467(b))

**3. Joining of Materials Other than by Welding** *Does the process require that pipeline joints (to be made other than by welding) be designed and installed in accordance with 192.273?* (DC.CO.NONWELDJOINT.P) 192.303 (192.273(a);192.273(b);192.273(c))

**4. Plastic Pipe Joints** *Does the process require plastic pipe joints to be designed and installed in accordance with 192.281?* (DC.CO.PLASTICJOINT.P) 192.303 (192.281(a);192.281(b);192.281(c);192.281(d);192.281(e))

**5. Plastic Pipe Joints** *As applicable to the project, do records indicate that plastic pipe joints are installed in accordance with the requirements 192.281?* (DC.CO.PLASTICJOINT.R) 192.281(a) (192.281(b);192.281(c);192.281(d);192.281(e))

**6. Plastic Pipe Joints** *As applicable to the project, are plastic pipe joints installed in accordance with the requirements 192.281?* (DC.CO.PLASTICJOINT.O) 192.281(a) (192.281(b);192.281(c);192.281(d);192.281(e))

**7. Plastic pipe - Qualifying Joining Procedures** *Does the process require plastic pipe joining procedures to be qualified in accordance with 192.283, prior to making plastic pipe joints?* (DC.CO.PLASTICJOINTPROCEDURE.P) 192.283(a) (192.283(b);192.283(c);192.283(d))

**8. Plastic pipe - Qualifying Personnel to Make Joints** *Is a process in place to ensure that personnel making joints in plastic pipelines are qualified?* (DC.CO.PLASTICJOINTQUAL.P) 192.285(d) (192.285(a);192.285(b);192.285(c);192.805)

**9. Plastic pipe - Qualifying Personnel to Make Joints** *Do records indicate persons making joints in plastic pipelines are qualified in accordance with 192.285? (DC.CO.PLASTICJOINTQUAL.R) 192.285(d) (192.285(a);192.285(b);192.285(c);192.807(a);192.807(b))*

**10. Plastic pipe - Qualifying Joining Procedures** *Are persons making joints in plastic pipelines qualified? (DC.CO.PLASTICJOINTQUAL.O) 192.285(d) (192.285(a);192.285(b);192.285(c);192.807(b))*

**11. Qualification of Personnel Inspecting Joints in Plastic Pipelines** *Is a process in place to assure that persons who inspect joints in plastic pipes are qualified? (DC.CO.PLASTICJOINTINSP.P) 192.287 (192.805(h))*

**12. Qualification of Personnel Inspecting Joints in Plastic Pipelines** *Do records indicate persons inspecting the making of plastic pipe joints have been qualified? (DC.CO.PLASTICJOINTINSP.R) 192.287 (192.807(a);192.807(b))*

**13. Qualification of Personnel Inspecting Joints in Plastic Pipelines** *Do person(s) inspecting joints in plastic pipelines demonstrate they are qualified to evaluate the acceptability of plastic pipe joints? (DC.CO.PLASTICJOINTINSP.O) 192.287 (192.807(b))*

**14. Written Construction Specifications or Standards** *Does the operator have written construction specifications or standards as required of 192.303? (DC.CO.SPECS.P) 192.303*

**15. Inspection General** *Does the process require the pipeline to be inspected to ensure that it is constructed in accordance with Part 192? (DC.CO.INSPECT.P) 192.303 (192.305)*

**16. Inspection General** *Do records indicate the pipeline is being inspected to ensure it is constructed in accordance with Part 192? (DC.CO.INSPECT.R) 192.305*

**17. Inspection General** *Is the pipeline being inspected to ensure it is constructed in accordance with Part 192? (DC.CO.INSPECT.O) 192.305*

**18. Inspection of Materials** *Does the process require pipe and other components to be visually inspected prior to installation?* (DC.CO.INSPECTVISUAL.P) 192.303 (192.307)

**19. Inspection of Materials** *Do records indicate that pipe and other components were visually inspected prior to installation?* (DC.CO.INSPECTVISUAL.R) 192.307

**20. Inspection of Materials** *Are pipe lengths and other pipeline components visually inspected to ensure they are not damaged?* (DC.CO.INSPECTVISUAL.O) 192.307

**21. Repair of Steel Pipe** *Does the process require repairs to steel pipe, in accordance with 192.309?* (DC.CO.REPAIR.P) 192.303 (192.309(a);192.309(b);192.309(c);192.309(d);192.309(e))

**22. Repair of Steel Pipe** *Do records demonstrate that repairs to steel pipe are being made in accordance with 192.309?* (DC.CO.REPAIR.R) 192.309(a) (192.309(b);192.309(c);192.309(d);192.309(e))

**23. Repair of Steel Pipe** *Are repairs to steel pipe made in accordance with 192.309?* (DC.CO.REPAIR.O) 192.309(a) (192.309(b);192.309(c);192.309(d);192.309(e))

**24. Repair of Plastic Pipe** *Does the process require imperfections or damage of plastic pipe to be repaired or removed?* (DC.CO.REPAIRPLASTIC.P) 192.303 (192.311)

**25. Repair of Plastic Pipe** *Do records indicate that imperfections or damage of plastic pipe are repaired or removed?* (DC.CO.REPAIRPLASTIC.R) 192.311

**26. Repair of Plastic Pipe** *Are imperfections or damage of plastic pipe repaired or removed?* (DC.CO.REPAIRPLASTIC.O) 192.311

**27. Bends and Elbows** *Does the process require field bends to be made in accordance with 192.313?*  
(DC.CO.FIELDBEND.P) 192.303 (192.313(a);192.313(b);192.313(c))

**28. Bends and Elbows** *Do records indicate that field bends are made in accordance with 192.313?* (DC.CO.FIELDBEND.R)  
192.313(a) (192.313(b);192.313(c))

**29. Bends and Elbows** *Do field observations confirm field bends are being made in accordance with 192.313(a)?*  
(DC.CO.FIELDBEND.O) 192.313(a) (192.313(b);192.313(c))

**30. Wrinkle Bends** *Does the process require that wrinkle bends are made in accordance with 192.315?*  
(DC.CO.WRINKLEBEND.P) 192.303 (192.315(a);192.315(b))

**31. Wrinkle Bends** *Do records indicate that wrinkle bends were made in accordance with 192.315?*  
(DC.CO.WRINKLEBEND.R) 192.315(a) (192.315(b))

**32. Wrinkle Bends** *Do field observations confirm wrinkle bends are made in accordance with 192.315?*  
(DC.CO.WRINKLEBEND.O) 192.315(a) (192.315(b))

**33. Protection from Hazards** *Does the operator have written specifications requiring transmission line or main be protected from hazards in accordance with 192.317?* (DC.CO.HAZARD.P) 192.303 (192.317(a);192.317(b);192.317(c);192.103)

**34. Protection from Hazards** *Do records demonstrate the installed transmission line or main is protected from hazards?*  
(DC.CO.HAZARD.R) 192.317(a) (192.317(b);192.317(c);192.603;192.614;192.709)

**35. Protection from Hazards** *Do field observations demonstrate or confirm installed transmission line or main is protected from hazards?* (DC.CO.HAZARD.O) 192.317 (192.303;192.614)

**36. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do written specifications stipulate that each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired?* (DC.DPC.CCROTTOATLOWER.P) 192.143(b) (192.461(c))

**37. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do records indicate that each pipe segment with external protective coating was inspected just prior to lowering into the ditch and backfilling, and any damage detrimental to effective corrosion control was repaired?* (DC.DPC.CCROTTOATLOWER.R) 192.143(b) (192.461(c))

**38. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do the field observations confirm that each pipe segment with external protective coating was inspected just prior to lowering into the ditch and backfilling, and any damage detrimental to effective corrosion control was repaired?* (DC.DPC.CCROTTOATLOWER.O) 192.143(b) (192.461(c))

**39. Installation of Pipe in a Ditch** *Does the process require that piping be installed such that stresses are minimized and the coating is protected?* (DC.CO.INSTALL.P) 192.303 (192.319(a);192.319(b))

**40. Installation of Pipe in a Ditch** *Do records demonstrate that piping was installed such that stresses are minimized and the coating is protected?* (DC.CO.INSTALL.R) 192.303 (192.319(a);192.319(b))

**41. Installation of Pipe in a Ditch** *When pipe is placed in the ditch, do field observations confirm pipe is installed so as to fit the ditch, minimize stresses, and protect the pipe coating from damage?* (DC.CO.INSTALL.O) 192.319(a) (192.319(b))

**42. Installation of Pipe in a Ditch - Offshore** *Does the process require that certain offshore pipe be installed in accordance with 192.319(c)?* (DC.CO.INSTALLOFFSHORE.P) 192.303 (192.319(c))

**43. Installation of Pipe in a Ditch - Offshore** *Do records indicate certain offshore pipe was installed in accordance with 192.319(c)?* (DC.CO.INSTALLOFFSHORE.R) 192.319(c)

**44. Installation of Pipe in a Ditch - Offshore** *Do field observations confirm certain offshore pipe is installed in accordance with 192.319(c)?* (DC.CO.INSTALLOFFSHORE.O) 192.319(c)

**45. Installation of Pipe in a Ditch - GOM & Inlets** *Does the process require that certain pipe in the Gulf of Mexico and its inlets be installed to the burial depths required by 192.319(c)?* (DC.CO.INSTALLGOM.P) 192.303 (192.319(c))

**46. Installation of Pipe in a Ditch - GOM & Inlets** *Do records indicate that certain pipe in the Gulf of Mexico and its inlets was installed to the burial depths required by 192.319(c)?* (DC.CO.INSTALLGOM.R) 192.303 (192.319(c))

**47. Installation of Plastic Pipe** *Does process require that plastic pipe be installed as required by 192.321?* (DC.CO.INSTALLPLASTIC.P) 192.303 (192.321(a);192.321(b);192.321(c);192.321(d);192.321(e);192.321(f);192.321(g))

**48. Installation of Plastic Pipe** *Do records indicate plastic pipe was installed as required by 192.321?* (DC.CO.INSTALLPLASTIC.R) 192.321(a) (192.321(b);192.321(c);192.321(d);192.321(e);192.321(f);192.321(g))

**49. Installation of Plastic Pipe** *Do field observations confirm the plastic pipe is installed as required by 192.321?* (DC.CO.INSTALLPLASTIC.O) 192.321(a) (192.321(b);192.321(c);192.321(d);192.321(e);192.321(f);192.321(g))

**50. Underground Clearance** *Does the process require pipe to be installed with clearances specified in 192.325 and (if plastic) installed as to prevent heat damage to the pipe?* (DC.CO.CLEAR.P) 192.303 (192.325(a);192.325(b);192.325(c))

**51. Underground Clearance** *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?* (DC.CO.CLEAR.R) 192.325(a) (192.325(b);192.325(c))

**52. Underground Clearance** *Is pipe installed with clearances in accordance with 192.325, and (if plastic) installed as to prevent heat damage to the pipe?* (DC.CO.CLEAR.O) 192.325(a) (192.325(b);192.325(c))

**53. Underground Clearance - Holders** *Does the process require pipe-type or bottle-type holders to be installed in accordance with 192.325(d)?* (DC.CO.CLEARHOLDER.P) 192.303 (192.325(d))

**54. Underground Clearance - Holders** *Are pipe-type or bottle-type holders installed in accordance with 192.325(d)?* (DC.CO.CLEARHOLDER.O) 192.325(d)

**55. Depth of Cover - Onshore** *Does the process specify that onshore piping is to be installed with a depth of cover as specified in 192.327?* (DC.CO.COVER.P) 192.303 (192.327(a);192.327(b);192.327(c), 192.327(d);192.327(e))

**56. Depth of Cover - Onshore** *Is onshore piping minimum cover provided as specified in 192.327?* (DC.CO.COVER.R) 192.327(a) (192.327(b);192.327(c);192.327(d);192.327(e))

**57. Depth of Cover - Onshore** *Is onshore piping minimum cover provided as specified in 192.327?* (DC.CO.COVER.O) 192.327(a) (192.327(b);192.327(c);192.327(d);192.327(e))

**58. Alternative MAOP: Construction** *For the AMAOP pipeline, does the process include conditions on the application of alternative MAOP?* (DC.CO.AMAOPCONST.P) 192.303 (192.328;192.620(b))

**59. Alternative MAOP: Construction** *For the AMAOP pipeline, do records indicate the new or existing pipeline segments meet the additional construction requirements of 192.328?* (DC.CO.AMAOPCONST.R) 192.328 (192.328(a);192.328(b);192.328(c);192.328(d);192.328(e);192.620(b))

**60. Alternative MAOP: Construction** *For the AMAOP pipeline, do field observations confirm the new or existing pipeline segments meet the additional construction requirements of 192.328?* (DC.CO.AMAOPCONST.O) 192.328 (192.328(a);192.328(b);192.328(c);192.328(d);192.328(e);192.620(b))

## Design and Construction - Construction Weld Inspection

**1. Inspection and Test of Welds** *Does the operator have comprehensive written specifications or procedures for the inspection and testing of welds that meet the requirements of 192.241?* (DC.WELDINSPE.WELDVISUALQUAL.P) 192.241 (192.225;192.227;192.229;192.231;192.233;192.243;192.245)

**2. Inspection and Test of Welds** *Does the operator have records showing that the welding was visually and/or non-destructively tested according to the requirements of 192.241 and the operator's specifications or procedures?* (DC.WELDINS.P.WELDVISUALQUAL.R) 192.241 (192.225;192.227;192.229;192.231;192.233;192.243;192.245)

**3. Inspection and Test of Welds** *Do field observations confirm that inspection and testing of welds was being done in accordance with the requirements of 192.241 and the operator's written specifications or procedures?* (DC.WELDINS.P.WELDVISUALQUAL.O) 192.241(a) (192.225;192.227;192.229;192.231;192.233;192.243;192.245)

**4. Nondestructive Test and Interpretation Procedures** *Is there a process for nondestructive testing and interpretation in accordance with 192.243?* (DC.WELDINS.P.WELDN.DT.P) 192.243

**5. Nondestructive Test and Interpretation Procedures** *Do records indicate that NDT and interpretation are in accordance with 192.243?* (DC.WELDINS.P.WELDN.DT.R) 192.243

**6. Nondestructive Test and Interpretation Procedures** *Do field observations indicate that welding NDT procedures are being properly followed?* (DC.WELDINS.P.WELDN.DT.O) 192.243

**7. Repair or Removal of Weld Defects** *Does the process require welds that are unacceptable to be removed and/or repaired as specified by 192.245?* (DC.WELDINS.P.WELDR.PAIR.P) 192.245 (192.303)

**8. Repair or Removal of Weld Defects** *Do records indicate that unacceptable welds are removed and/or repaired in accordance with 192.245?* (DC.WELDINS.P.WELDR.PAIR.R) 192.245 (192.303)

**9. Repair or Removal of Weld Defects** *Do field observations confirm that unacceptable welds removed and/or repaired in accordance with 192.245?* (DC.WELDINS.P.WELDR.PAIR.O) 192.245 (192.303)

## Design and Construction - Construction Welding Procedures

**1. Welding Procedures** *Does the operator have written specifications requiring qualified welding procedures in accordance with 192.225? (DC.WELDPROCEDURE.WELD.P) 192.225*

**2. Welding Procedures** *Does the operator have detailed records showing proper qualification of the welding procedures in accordance with 192.225? (DC.WELDPROCEDURE.WELD.R) 192.225*

**3. Welding Procedures** *Do field observations indicate proper qualification of the welding procedures in accordance with 192.225? (DC.WELDPROCEDURE.WELD.O) 192.225*

**4. Welding Procedures - Welder Qualification** *Do the written specifications require welders to be qualified in accordance with applicable sections of API Standard 1104 or ASME BPVC, Section IX and cover the limitations in 192.229? (DC.WELDPROCEDURE.WELDERQUAL.P) 192.227 (192.225;192.229)*

**5. Welding Procedures - Welder Qualification** *Do the records demonstrate that the welders are qualified in accordance with applicable sections of API Standard 1104 or ASME BPVC, Section IX, and cover the limitations in 192.229? (DC.WELDPROCEDURE.WELDERQUAL.R) 192.227 (192.225;192.229)*

**6. Welding Procedures - Welder Qualification** *Do field observations confirm that the welders are qualified in accordance with applicable sections of API Standard 1104 or ASME BPVC, Section IX, and cover the limitations in 192.229? (DC.WELDPROCEDURE.WELDERQUAL.O) 192.227 (192.225;192.229)*

**7. Welding Weather** *Does the operator have written specifications that require the welding operation to be protected from weather conditions that would impair the quality of the completed weld? (DC.WELDPROCEDURE.WELDWEATHER.P) 192.231 (192.225;192.227)*

**8. Welding Weather** *Does the operator have records that document weather conditions, suspension, protective measures, and resumption of the welding processes to prevent impairment of the quality of the completed weld? (DC.WELDPROCEDURE.WELDWEATHER.R) 192.231 (192.225;192.227)*

**9. Welding Weather** *Do field observations indicate that welding operations are protected from weather conditions that would impair the quality of welds?* (DC.WELDPROCEDURE.WELDWEATHER.O) 192.231 (192.225;192.227)

**10. Miter Joints** *Does the operator have written specifications or procedures that prohibit the use of certain miter joints as required by 192.233?* (DC.WELDPROCEDURE.MITERJOINT.P) 192.233

**11. Miter Joints** *In the event that improper miter joints are installed, does the operator have records to indicate that the miter joints were removed as required by 192.233?* (DC.WELDPROCEDURE.MITERJOINT.R) 192.233

**12. Miter Joints** *In the event that miter joints were being used, do field observations show that the miter joints were properly constructed as required by 192.233?* (DC.WELDPROCEDURE.MITERJOINT.O) 192.233

**13. Preparation for Welding** *Does the operator have comprehensive written specifications or procedures that require preparations for welding in accordance with 192.235?* (DC.WELDPROCEDURE.WELDPREP.P) 192.235

**14. Preparation for Welding** *Do welding inspection records show that welding preparation was not performed according to 192.235 and the operator's specifications or procedures, or that identified issues were not corrected?* (DC.WELDPROCEDURE.WELDPREP.R) 192.235

**15. Preparation for Welding** *Do field observations confirm that welding preparations are being made in accordance with 192.235 and the operator's welding specifications and procedures?* (DC.WELDPROCEDURE.WELDPREP.O) 192.235 (192.225;192.227;192.229;192.231;192.233;192.241;192.243;192.245)

## Design and Construction - Design of Pipe

**1. Pipe Design - General (Onshore)** *Does the operator have specifications in place for pipe design so that the wall thickness is sufficient or installed with adequate protection to withstand external pressures and loads that will be imposed on the pipe after installation?* (DC.DP.PIPEDESIGN.P) 192.103 (192.105;192.107;192.109;192.111;192.112;192.115;192.121;192.123;192.125;192.303;192.305;192.307)

**2. Steel Pipe Design Pressure (MAOP)** *Does the operator have written procedures in place for steel pipe design so that the wall thickness is sufficient for the intended maximum operating pressure as required by 192.105?* (DC.DP.PIPEDESMAOP.P) 192.105 (192.103;192.107;192.109;192.111;192.113;192.115;192.121;192.123;192.125;192.303;192.305;192.307)

**3. Steel Pipe Design Pressure (MAOP)** *Do design records and drawings indicate the design pressure of steel pipe is established in accordance with 192.105(a)?* (DC.DP.PIPEDESMAOP.R) 192.105 (192.107;192.109;192.111;192.113;192.115)

**4. Pipe Class Location** *Does the operator have written procedures for determining the class location for the new pipeline immediately prior to design?* (DC.DP.CLASSLOCATION.P) 192.111 (192.5;192.105;192.609)

**5. Pipe Class Location** *Does the operator have complete records showing the determination of class location(s) for the new pipeline?* (DC.DP.CLASSLOCATION.R) 192.111 (192.5;192.105;192.609)

**6. Pipe Class Location** *Do field verifications confirm the operator's class location determinations for the new pipeline?* (DC.DP.CLASSLOCATION.O) 192.111 (192.5;192.105;192.609)

**7. Steel Pipe Design Factor** *Does the operator have written procedures for determining the Design Factor to be used for steel pipe as required by 192.111?* (DC.DP.PIPEDESFACTOR.P) 192.111 (192.103;192.105;192.107;192.109;192.112;192.115;192.121;192.123;192.125;192.303;192.305;192.307)

**8. Steel Pipe Design Using Alternative MAOP** *Does the operator have written procedures for the additional design requirements needed to be eligible for the alternative maximum allowable operating pressure (AMAOP) covered by 192.112 and calculated using 192.620?* (DC.DP.PIPEDESAMAOP.P) 192.112 (192.103;192.105;192.107;192.109;192.111;192.115;192.121;192.123;192.125;192.303;192.305;192.307)

**9. Steel Pipe Design Using Alternative MAOP** *Do design records indicate alternative MAOP replacement pipe and components meet the additional design requirements of 192.112?* (DC.DP.PIPEDESAMAOP.R) 192.112 (192.303)

**10. Design of Plastic Pipe (192.121)** *Does the process require the design pressure for plastic pipe to be determined in accordance with the formulas in 192.121?* (DC.DP.DESIGNPRESSPLASTIC.P) 192.103 (192.121)

**11. Design of Plastic Pipe (192.121)** *Do design records and drawings indicate the design pressure for plastic pipe is determined in accordance with the formulas in 192.121?* (DC.DP.DESIGNPRESSPLASTIC.R) 192.121

**12. Design Limitations for Plastic Pipe (192.123)** *Does the process require the design limitations of 192.123 be incorporated into the design of plastic pipe?* (DC.DP.DESIGNLIMITPLASTIC.P) 192.103  
(192.123(a);192.123(b);192.123(c);192.123(d);192.123(e);192.123(f))

**13. Design Limitations for Plastic Pipe (192.123)** *Do design records and drawings indicate that the design limitations of 192.123 are incorporated into the design of plastic pipe?* (DC.DP.DESIGNLIMITPLASTIC.R) 192.123(a)  
(192.123(b);192.123(c);192.123(d);192.123(e);192.123(f))

## Design and Construction - Design of Compressor Stations

**1. Compressor Stations - Location of Compressor Building** *Does the operator have written specifications requiring compressor stations be designed and constructed in accordance with 192.163?* (DC.DPCCMP.CMPBLDGLOCATE.P) 192.163 (192.143;GPTC;NFPA 70)

**2. Compressor Stations - Location of Compressor Building** *Do the operator's records indicate that the compressor station has been designed and constructed to comply with 192.163?* (DC.DPCCMP.CMPBLDGLOCATE.R) 192.163 (192.143;GPTC;NFPA 70;192.163(e))

**3. Compressor Stations - Location of Compressor Building** *Do field observations confirm that design and construction of compressor station buildings meet the requirements of 192.163?* (DC.DPCCMP.CMPBLDGLOCATE.O) 192.163 (192.143;GPTC;NFPA 70)

**4. Compressor Stations Liquid Removal** *Does the operator have written specifications that require compressors be protected from liquids?* (DC.DPCCMP.CMPLIQPROT.P) 192.165 (192.143;192.153(e);192.505(b))

**5. Compressor Stations Liquid Removal** *Does the operator have records to indicate that compressors are protected from liquids in accordance with 192.165?* (DC.DPCCMP.CMPLIQPROT.R) 192.165(a) (192.615(b);192.153(e);192.143)

**6. Compressor Stations Liquid Removal** *Do field observations confirm that compressors are protected from liquids and, as applicable, liquid separators for compressors installed in accordance with 192.165? (DC.DPCCMP.CMPLIQPROT.O) 192.165 (192.143)*

**7. Compressor Stations Emergency Shutdown** *Does the operator have written specifications requiring that compressor station emergency shutdown systems meet the requirements of 192.167? (DC.DPCCMP.CMPESD.P) 192.167 (192.143;CPF 3-2011-1009)*

**8. Compressor Stations Emergency Shutdown** *Do the operator's records indicate that compressor station emergency shutdown systems meet the requirements of 192.167? (DC.DPCCMP.CMPESD.R) 192.167 (192.143)*

**9. Compressor Stations Emergency Shutdown** *Do field observations confirm that design and construction of compressor station emergency shutdown systems meet the requirements of 192.167? (DC.DPCCMP.CMPESD.O) 192.167 (192.143)*

**10. Compressor Stations - Pressure Limiting Devices** *Does the operator have written specifications requiring that compressor stations have pressure relief or other suitable protective devices that meet the requirements of 192.169? (DC.DPCCMP.CMPPRESSLIMIT.P) 192.169 (192.141;192.143;192.199)*

**11. Compressor Stations - Pressure Limiting Devices** *Does the operator have records to indicate that compressor stations have pressure relief or other suitable protective devices in accordance with 192.169? (DC.DPCCMP.CMPPRESSLIMIT.R) 192.169 (192.141;192.143;192.199)*

**12. Compressor Stations - Pressure Limiting Devices** *Do field observations confirm design and construction of compressor station pressure limiting devices meet the requirements of 192.169? (DC.DPCCMP.CMPPRESSLIMIT.O) 192.169 (192.141;192.143;192.199)*

**13. Compressor Stations - Additional Safety Equipment** *Does the operator have written specifications requiring additional compressor station safety equipment be designed and constructed in accordance with 192.171? (DC.DPCCMP.CMPSAFETYEQUIP.P) 192.171 (192.143;192.167(a)(3))*

**14. Compressor Stations - Additional Safety Equipment** *Do the operator's records indicate that additional compressor station safety equipment is designed and constructed in accordance with 192.171?* (DC.DPCCMP.CMPSAFETYEQIP.R) 192.171 (192.143)

**15. Compressor Stations - Additional Safety Equipment** *Do field observations confirm that design and construction of additional compressor station safety equipment meet the requirements of 192.171?* (DC.DPCCMP.CMPSAFETYEQIP.O) 192.171 (192.141;192.143)

**16. Compressor Stations Ventilation** *Does the operator have written specifications requiring ventilation of compressor buildings in accordance with 192.173?* (DC.DPCCMP.CMPVENTILATE.P) 192.173 (192.143)

**17. Compressor Stations Ventilation** *Do operator records indicate that the design and construction of compressor buildings meet the ventilation requirements of 192.173?* (DC.DPCCMP.CMPVENTILATE.R) 192.173 (192.143)

**18. Compressor Stations Ventilation** *Do field observations confirm that design and construction of compressor buildings meet the ventilation requirements of 192.173?* (DC.DPCCMP.CMPVENTILATE.O) 192.173 (192.143)

## Design and Construction - Design of Pipe - Overpressure Protection

**1. Protection against Accidental Overpressuring** *Does the process require the pipeline have pressure relieving or pressure limiting devices that are required of 192.195(a), and that they meet the requirements of 192.199 and 192.201?* (DC.DPCOPP.OVERPRESSURE.P) 192.143(a); 192.143(b); 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)

**2. Protection against Accidental Overpressuring** *Do records indicate that the pipeline has pressure relieving or pressure limiting devices that are required by 192.195(a), and that they meet the requirements of 192.199 and 192.201?* (DC.DPCOPP.OVERPRESSURE.R) 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)

**3. Protection against Accidental Overpressuring** *Are required pressure relieving or pressure limiting devices being installed, and do they meet the requirements of 192.199 and 192.201?* (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))

**4. Design of Pressure Relief and Limiting Devices** *Does the process require that pressure relieving or pressure limiting devices meet the requirements of 192.199?* (DC.DPCOPP.PRESSLIMIT.P) 192.143(a) (192.143(b);192.199(a);192.199(b);192.199(c);192.199(d);192.199(e);192.199(f);192.199(g);192.199(h))

**5. Design of Pressure Relief and Limiting Devices** *Do records indicate that pressure relieving or pressure limiting devices meet the requirements of 192.199?* (DC.DPCOPP.PRESSLIMIT.R) 192.199(a) (192.199(b);192.199(c);192.199(d);192.199(e);192.199(f);192.199(g);192.199(h))

**6. Design of Pressure Relief and Limiting Devices** *Do pressure relieving or pressure limiting devices meet the requirements of 192.199?* (DC.DPCOPP.PRESSLIMIT.O) 192.199(a) (192.199(b);192.199(c);192.199(d);192.199(e);192.199(f);192.199(g);192.199(h))

**7. Required Capacity of Pressure Relieving and Limiting Stations** *Does the process require that pressure relief or pressure limiting stations being installed comply with 192.201?* (DC.DPCOPP.PRESSLIMITCAP.P) 192.143(a) (192.143(b);192.201(a);192.201(b);192.201(c))

**8. Required Capacity of Pressure Relieving and Limiting Stations** *Do records indicate that pressure relief or pressure limiting stations being installed comply with 192.201?* (DC.DPCOPP.PRESSLIMITCAP.R) 192.201(a) (192.201(b);192.201(c))

**9. Required Capacity of Pressure Relieving and Limiting Stations** *Do pressure relief or pressure limiting stations comply with the requirements of 192.201?* (DC.DPCOPP.PRESSLIMITCAP.O) 192.201(a) (192.201(b);192.201(c))

## Design and Construction - Design of Pipe Components

**1. Qualifying Metallic Components** *Do records indicate that certain metallic components are qualified for use in accordance with 192.144?* (DC.DPC.METALCOMPONENT.R) 192.144(a) (192.144(b))

**2. Valves** *Do records indicate valves comply with the requirements of 192.145?* (DC.DPC.VALVE.R) 192.145(a) (192.145(b);192.145(c);192.145(d))

**3. Valves** *Do valves comply with the requirements of 192.145?* (DC.DPC.VALVE.O) 192.141 (192.145(a);192.145(b);192.145(c);192.145(d))

**4. Flanges and Flange Accessories** *Do records indicate flanges and flange accessories meet the requirements of 192.147?* (DC.DPC.FLANGE.R) 192.147(a) (192.147(b);192.147(c))

**5. Flanges and Flange Accessories** *Do flanges and flange accessories meet the requirements of 192.147?* (DC.DPC.FLANGE.O) 192.141 (192.147(a);192.147(b);192.147(c))

**6. Standard Fittings** *Do records indicate standard fittings are in compliance with 192.149?* (DC.DPC.STANDARDFITTING.R) 192.149(a) (192.149(b))

**7. Standard Fittings** *Are standard fittings in compliance with 192.149?* (DC.DPC.STANDARDFITTING.O) 192.149(a) (192.149(b))

**8. Passage of Internal Inspection Devices** *Does the process require that certain transmission pipeline components are designed and constructed to accommodate the passage of instrumented internal inspection devices?* (DC.DPC.ILIPASS.P) 192.103 (192.150(a))

**9. Passage of Internal Inspection Devices** *Do records indicate that certain transmission pipeline components are designed and constructed to accommodate the passage of instrumented internal inspection devices?* (DC.DPC.ILIPASS.R) 192.150(a)

**10. Passage of Internal Inspection Devices** *Are certain transmission pipeline components designed and constructed to accommodate the passage of instrumented internal inspection devices?* (DC.DPC.ILIPASS.O) 192.141 (192.150(a))

**11. Tapping** *Does the process require that tapping fittings and taps comply with the requirements of 192.151?* (DC.DPC.TAP.P) 192.143 (192.151(a);192.151(b);192.151(c).)

**12. Tapping** *Do records indicate that tapping fittings and taps comply with the requirements of 192.151?* (DC.DPC.TAP.R) 192.151 (192.151(a);192.151(b);192.151(c).)

**13. Tapping** *Do tapping fittings and taps comply with the requirements of 192.151?* (DC.DPC.TAP.O) 192.141 (192.151(a);192.151(b);192.151(c).)

**14. Components Fabricated by Welding** *Does the process require components fabricated by welding to be in accordance with 192.153?* (DC.DPC.WELDFABRICATE.P) 192.143(a) (192.153(a);192.153(b);192.153(c);192.153(d))

**15. Components Fabricated by Welding** *Do records indicate that components fabricated by welding are in accordance with 192.153?* (DC.DPC.WELDFABRICATE.R) 192.153(a) (192.153(b);192.153(c);192.153(d))

**16. Components Fabricated by Welding** *Are components fabricated by welding in accordance with 192.153?* (DC.DPC.WELDFABRICATE.O) 192.141 (192.153(a);192.153(b);192.153(c);192.153(d))

**17. Pipeline Flexibility** *Does the process require pipeline flexibility design to be in accordance with 192.159?* (DC.DPC.FLEXIBLE.P) 192.143(a) (192.159)

**18. Pipeline Flexibility** *Do records indicate that pipeline flexibility is designed in accordance with 192.159?* (DC.DPC.FLEXIBLE.R) 192.159

**19. Supports and Anchors** *Do records indicate piping and associated equipment have sufficient anchors or supports to prevent undue strain on connected equipment, resist longitudinal forces, and prevent or dampen excessive vibration?* (DC.DPC.SUPPORT.R) 192.161(a) (192.161(b);192.161(c);192.161(d);192.161(e);192.161(f))

**20. Supports and Anchors** *Are anchors and supports being installed as required by 192.161?* (DC.DPC.SUPPORT.O) 192.141 (192.161(a);192.161(b);192.161(c);192.161(d);192.161(e);192.161(f))

**21. Transmission Line Valve Spacing** *Does the process require transmission line valve spacing to be accordance with 192.179(a)?* (DC.DPC.VALVESPACE.P) 192.143 (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))

**22. Transmission Line Valve Spacing** *Do records indicate that transmission line valve spacing is in accordance with 192.179(a)?* (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))

**23. Transmission Line Valve Spacing** *Are transmission line valves being installed as required by 192.179?* (DC.DPC.VALVESPACE.O) 192.141 (192.179(a);192.179(b);192.179(c);192.179(d))

**24. Design Pressure of Plastic Fittings** *Does the process require plastic fittings conform to the standards referenced in 192.191?* (DC.DPC.PLASTICFITTING.P) 192.191(a) (192.191(b))

**25. Design Pressure of Plastic Fittings** *Do records indicate that plastic fittings conform to the standards referenced in 192.191?* (DC.DPC.PLASTICFITTING.R) 192.191(a) (192.191(b))

**26. Pipe and Bottle Type Holders** *As applicable to the project, does the process require that pipe and bottle type holders are designed to meet requirements?* (DC.DPC.HOLDERS.P) 192.143(a) (192.143(b);192.175(a);192.175(b);192.177(a);192.177(b))

**27. Pipe and Bottle Type Holders** *As applicable to the project, do records indicate that pipe and bottle type holders are designed to meet requirements?* (DC.DPC.HOLDERS.R) 192.175(a) (192.175(b);192.177(a);192.177(b))

**28. Pipe and Bottle Type Holders** *As applicable to the project, are pipe-type and bottle-type holders installed as designed and in accordance with 192.175?* (DC.DPC.HOLDERS.O) 192.141 (192.175(a);192.175(b);192.177(a);192.177(b))

**29. Vaults Structural Design Requirements** *As applicable to the project, does the process require that vaults and valve pits are designed in accordance with 192.183?* (DC.DPC.VAULT.P) 192.143(a) (192.143(b);192.183(a);192.183(b);192.183(c))

**30. Vaults Structural Design Requirements** *As applicable to the project, do records indicate that vaults and valve pits are designed in accordance with 192.183?* (DC.DPC.VAULT.R) 192.183(a) (192.183(b);192.183(c))

**31. Vaults Structural Design Requirements** *As applicable to the project, are vaults/pits installed as designed, and per the requirements of 192.183?* (DC.DPC.VAULT.O) 192.141 (192.183(a);192.183(b);192.183(c))

**32. Vaults Accessibility** *As applicable to the project, does the process require that vaults are located in an accessible location?* (DC.DPC.VAULTACCESS.P) 192.143(a) (192.143(b);192.185(a);192.185(b);192.185(c))

**33. Vaults Accessibility** *As applicable to the project, do records indicate that vaults are located in an accessible location?* (DC.DPC.VAULTACCESS.R) 192.185(a) (192.185(b);192.185(c))

**34. Vaults Accessibility** *As applicable to the project, are vaults located in an accessible location?* (DC.DPC.VAULTACCESS.O) 192.141 (192.185(a))

**35. Vaults Sealing, Venting, and Ventilation** *As applicable to the project, does the process require that underground vaults or closed top pits are to be sealed, vented or ventilated as required by 192.187?* (DC.DPC.VAULTSEAL.P) 192.187(a) (192.187(b);192.187(c))

**36. Vaults Sealing, Venting, and Ventilation** *As applicable to the project, do records indicate that underground vaults or closed top pits are to be sealed, vented or ventilated as required by 192.187?* (DC.DPC.VAULTSEAL.R) 192.187(a) (192.187(b);192.187(c))

**37. Vaults Sealing, Venting, and Ventilation** *As applicable to the project, are vaults/pits sealed, ventilated, or vented as required of 192.187?* (DC.DPC.VAULTSEAL.O) 192.141 (192.187(a);192.187(b);192.187(c))

**38. Vaults Drainage and Waterproofing** *As applicable to the project, does the process require that underground vaults or pits are protected from water intrusion as required of 192.189?* (DC.DPC.VAULTWATER.P) 192.143(a) (192.143(b);192.189(a);192.189(b);192.189(c))

**39. Vaults Drainage and Waterproofing** *As applicable to the project, do records indicate that underground vaults or pits are protected from water intrusion as required of 192.189?* (DC.DPC.VAULTWATER.R) 192.189(a) (192.189(b);192.189(c))

**40. Vaults Drainage and Waterproofing** *As applicable to the project, are vaults installed to minimize water entrance, and have proper electrical equipment?* (DC.DPC.VAULTWATER.O) 192.141 (192.189(a);192.189(b);192.189(c))

**41. Instrument, Control, and Sampling Pipe and Components** *As applicable to the project, does the process require that instrument, control, and sampling pipe and components are designed in accordance with 192.203?* (DC.DPC.INSTRUMENTPIPE.P) 192.143(a) (192.143(b);192.203(a);192.203(b))

**42. Instrument, Control, and Sampling Pipe and Components** *As applicable to the project, do records indicate that instrument, control, and sampling pipe and components are designed in accordance with 192.203?* (DC.DPC.INSTRUMENTPIPE.R) 192.203(a) (192.203(b))

**43. Instrument, Control, and Sampling Pipe and Components** *As applicable to the project, are instrument, control, and sampling pipe and components installed as designed and in accordance with 192.203?* (DC.DPC.INSTRUMENTPIPE.O) 192.141 (192.203(a);192.203(b))

**44. Internal Corrosion Control: Design and Construction (192.476)** *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?* (DC.DPC.INTCORRODE.P) 192.453 (192.476(a);192.476(b);192.476(c))

**45. Internal Corrosion Control: Design and Construction (192.476)** *Do records demonstrate the transmission line project has features incorporated into its design and construction to reduce the risk of internal corrosion, as required of 192.476?* (DC.DPC.INTCORRODE.R) 192.476(d) (192.476(b);192.476(c);192.476(a))

**46. Internal Corrosion Control: Design and Construction (192.476)** *Does the transmission project's design and construction comply with 192.476?* (DC.DPC.INTCORRODE.O) 192.476(a) (192.476(b);192.476(c))

**47. Corrosion Control - Protective Coating Surface Preparation** *Do the procedures and/or written specifications stipulate that each protective coating applied for the purpose of external corrosion control must be applied on a properly prepared surface?* (DC.DPC.CCROTCOATSURFPREP.P) 192.143(b) (192.461(a);192.303;192.309(a))

**48. Corrosion Control - Protective Coating Surface Preparation** *Do records indicate that each protective coating applied for the purpose of external corrosion control was applied on a properly prepared surface?* (DC.DPC.CCROTCOATSURFPREP.R) 192.143(b) (192.461(a);192.309(a);192.491(c))

**49. Corrosion Control - Protective Coating Surface Preparation** *Do field observations confirm that each protective coating applied for the purpose of external corrosion control was applied on a properly prepared surface in accordance of the operator's written specifications?* (DC.DPC.CCROTCOATSURFPREP.O) 192.143(b) (192.461(a);192.309(a))

**50. Corrosion Control - Protective Coating Properties** *Do the operator's written specifications stipulate that each protective coating applied for the purpose of external corrosion control will have sufficient adhesion to the metal surface to effectively resist underfilm migration of moisture; sufficient ductility to resist cracking; sufficient strength to resist damage due to handling and soil stress; properties compatible with any supplemental cathodic protection; and, electrically insulating type with low moisture absorption and high electrical resistance?* (DC.DPC.CCROTCOATPROP.P) 192.143(b) (192.461(a)(2);192.461(a)(3);192.461(a)(4);192.461(a)(5);192.461(b))

**51. Corrosion Control - Protective Coating Properties** *Do records indicate that that each protective coating applied for the purpose of external corrosion control has sufficient adhesion to the metal surface to effectively resist underfilm migration of moisture; sufficient ductility to resist cracking; sufficient strength to resist damage due to handling and soil stress; properties compatible with any supplemental cathodic protection; and, electrically insulating type with low moisture absorption and high electrical resistance?* (DC.DPC.CCROTCOATPROP.R) 192.143(b) (192.461(a)(2);192.461(a)(3);192.461(a)(4);192.461(a)(5);192.461(b);)

**52. Corrosion Control - Protective Coating Properties** *Do field observations confirm that each protective coating applied for the purpose of external corrosion control has sufficient adhesion to the metal surface to effectively resist underfilm migration of moisture; sufficient ductility to resist cracking; sufficient strength to resist damage due to handling and soil stress; properties compatible with any supplemental cathodic protection; and, electrically insulating type with low moisture absorption and high electrical resistance?* (DC.DPC.CCROTCOATPROP.O) 192.143(b) (192.461(a)(2);192.461(a)(3);192.461(a)(4);192.461(a)(5);192.461(b))

**53. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do written specifications stipulate that each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired?* (DC.DPC.CCROTCOATLOWER.P) 192.143(b) (192.461(c))

**54. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do records indicate that each pipe segment with external protective coating was inspected just prior to lowering into the ditch and backfilling, and any damage detrimental to effective corrosion control was repaired?* (DC.DPC.CCROTCOATLOWER.R) 192.143(b) (192.461(c))

**55. Corrosion Control - Inspect Coating Before Lowering Pipe** *Do the field observations confirm that each pipe segment with external protective coating was inspected just prior to lowering into the ditch and backfilling, and any damage detrimental to effective corrosion control was repaired?* (DC.DPC.CCROTCOATLOWER.O) 192.143(b) (192.461(c))

**56. Corrosion Control - Protect Coating in Ditch** *Do operator's written specifications stipulate that each external protective coating must be protected from damage resulting from adverse ditch conditions or damage from supporting blocks?* (DC.DPC.CCROTCOATINGINDITCH.P) 192.143(b) (192.461(d))

**57. Corrosion Control - Protect Coating in Ditch** *Do operator's records indicate that each external protective coating was protected from damage resulting from adverse ditch conditions or damage from supporting blocks?* (DC.DPC.CCROTCOATINGINDITCH.R) 192.143(b) (192.461(d))

**58. Corrosion Control - Protect Coating in Ditch** *Do field observations verify that each external protective coating was protected from damage resulting from adverse ditch conditions or damage from supporting blocks?* (DC.DPC.CCROTCOATINGINDITCH.O) 192.143(b) (192.461(d))

**59. Corrosion Control - Protect Coating During Boring** *Do operator's written specifications stipulate that precautions must be taken to minimize damage to the coating during installation, if coated pipe is installed by boring, driving, or other similar method?* (DC.DPC.CCROTCOATBORING.P) 192.143(b) (192.461(e))

- 60. Corrosion Control - Protect Coating During Boring** *Do records indicate that precautions were taken to minimize damage to the coating during installation, if coated pipe is installed by boring, driving, or other similar method?* (DC.DPC.CCROTCOATBORING.R) 192.143(b) (192.461(e))
- 61. Corrosion Control - Protect Coating During Boring** *Do field observations confirm that precautions were taken to minimize damage to the coating during installation, if coated pipe was installed by boring, driving, or other similar method?* (DC.DPC.CCROTCOATBORING.O) 192.143(b) (192.461(e))
- 62. External Corrosion Control - CP Design** *Do operator's written specifications stipulate that the cathodic protection system must be designed and installed to comply with one or more of the applicable criteria contained in Appendix D of Part 192?* (DC.DPC.CCCATHPROTDES.P) 192.463(a) (192.143(b))
- 63. External Corrosion Control - CP Design** *Do operator's records indicate that the cathodic protection system was designed and installed to comply with one or more of the applicable criteria contained in Appendix D of Part 192?* (DC.DPC.CCCATHPROTDES.R) 192.463(a) (192.143(b))
- 64. External Corrosion Control - CP Design** *Do field observations confirm that the cathodic protection system was designed and installed to comply with one or more of the applicable criteria contained in Appendix D of Part 192?* (DC.DPC.CCCATHPROTDES.O) 192.463(a) (192.143(b))
- 65. External Corrosion Control - Electrical Isolation of Casings** *Do operator's written specifications stipulate that each pipeline must be electrically isolated from metallic casings that are a part of the underground system?* (DC.DPC.CCELECTRICALISOL.P) 192.467(c) (192.143(b))
- 66. External Corrosion Control - Electrical Isolation of Casings** *Do operator's records indicate that each pipeline was electrically isolated from metallic casings that are a part of the underground system?* (DC.DPC.CCELECTRICALISOL.R) 192.467(c) (192.143(b);)
- 67. External Corrosion Control - Electrical Isolation of Casings** *Do field observations confirm that each pipeline was electrically isolated from metallic casings that are a part of the underground system?* (DC.DPC.CCELECTRICALISOL.O) 192.467(c) (192.143(b))

**68. External Corrosion Control - Electrical Isolation from Underground Metallic Structures** *Do written specifications stipulate that each buried or submerged pipeline must be electrically isolated from other underground metallic structures?* (DC.DPC.CCELECTRISOLSTRUCT.P) 192.143(b) (192.467(a);192.467(b);192.467(d);192.467(e);192.467(f);NACE RP0169;NACE SP0200-2008)

**69. External Corrosion Control - Electrical Isolation from Underground Metallic Structures** *Do records indicate that each buried or submerged pipeline was electrically isolated from other underground metallic structures?* (DC.DPC.CCELECTRISOLSTRUCT.R) 192.143(b) (192.467(a);192.467(b);192.467(d);192.467(e);192.467(f);NACE RP0169;NACE SP0200-2008)

**70. External Corrosion Control - Electrical Isolation from Underground Metallic Structures** *Do field observations confirm that each buried or submerged pipeline was designed and installed so that it was electrically isolated from other underground metallic structures or where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control?* (DC.DPC.CCELECTRISOLSTRUCT.O) 192.143(b) (192.467(a);192.467(b);192.467(d);192.467(e);192.467(f);NACE RP0169;NACE SP0200-2008)

**71. Alternative MAOP - Design and test factors** *Do records indicate alternative MAOP replacement facilities/components meet the design and test factor requirements listed in 192.620(a)?* (DC.DPC.AMAOP.R) 192.620(a) (192.620(b))

## Design and Construction - Gathering

**1. Gathering Lines** *Does evidence demonstrate compliance with the design and installation requirements of Part 192 for certain gathering lines?* (DC.GA.COMPLIANCE.P) 192.9(a) (192.9(b);192.9(c);192.9(d))

**2. Gathering Lines** *Does evidence demonstrate compliance with the design and installation requirements of Part 192 for certain gathering lines?* (DC.GA.COMPLIANCE.O) 192.9(a) (192.9(b);192.9(c);192.9(d))

## Design and Construction - Maintenance and Operations

**1. Internal Corrosion in Cutout Pipe** *Does the process direct personnel to examine removed pipe for evidence of internal corrosion?* (DC.MO.ICEXAMINE.P) 192.605(b) (192.475(a);192.475(b);192.475(c))

**2. Internal Corrosion in Cutout Pipe** *Do records indicate examination of removed pipe for evidence of internal corrosion?* (DC.MO.ICEXAMINE.R) 192.491(c) (192.475(a);192.475(b);192.475(c))

**3. Internal Corrosion in Cutout Pipe** *Is examination of removed pipe conducted to determine any evidence of internal corrosion?* (DC.MO.ICEXAMINE.O) 192.475(a) (192.475(b);192.475(c))

**4. Start-Stop Procedures** *Does the process include procedures for starting up and shutting down any part of the pipeline system in a manner designed to assure operation within the MAOP limits prescribed by Part 192, plus the build-up allowed for operation of pressure-limiting and control devices?* (DC.MO.MAOPLIMIT.P) 192.605(b)(5)

**5. Start-Stop Procedures** *Do records indicate that the pressure limitations on the pipeline are not exceeded?* (DC.MO.MAOPLIMIT.R) 192.605(b)(5)

**6. Start-Stop Procedures** *During startup or shut-in, is it assured that the pressure limitations on the pipeline were not exceeded?* (DC.MO.MAOPLIMIT.O) 192.605(b)(5)

**7. Prevention of Accidental Ignition** *As applicable to the project, is a process in place for preventing accidental ignition where gas presents a hazard of fire or explosion?* (DC.MO.IGNITION.P) 192.605(b) (192.751(a);192.751(b);192.751(c))

**8. Prevention of Accidental Ignition** *If applicable to the project, were processes followed where there exists the potential for accidental ignition?* (DC.MO.IGNITION.O) 192.751(a) (192.751(b);192.751(c))

**9. Tapping Pipelines Under Pressure** *Are there processes for tapping pipelines under pressure?* (DC.MO.HOTTAP.P) 192.605(b) (192.627)

**10. Tapping Pipelines Under Pressure** *Do records indicate that hot taps are performed in accordance with hot tap procedures?* (DC.MO.HOTTAP.R) 192.627

**11. Tapping Pipelines Under Pressure** *Are hot taps are performed in accordance with hot tap procedures?* (DC.MO.HOTTAP.O) 192.627

**12. Safety - Maintenance Construction and Testing** *Does the process ensure that pipeline maintenance construction and testing activities are made to provide safety, as required of 192.605(b)?* (DC.MO.SAFETY.P) 192.605(b) (192.605(b)(9))

**13. Safety - Maintenance Construction and Testing** *Do records indicate that pipeline maintenance construction and testing activities are performed in a safe manner?* (DC.MO.SAFETY.R) 192.605(b) (192.605(b)(9))

**14. Safety - Maintenance Construction and Testing** *Are pipeline maintenance construction and testing activities made in a safe manner?* (DC.MO.SAFETY.O) 192.605(b) (192.605(b)(9))

**15. Procedure Manual for Operations, Maintenance, and Emergencies** *Does the process require that procedures for operations, abnormal operations, maintenance, and emergencies be completed and implemented prior to the pipeline going into service?* (DC.MO.OMPROCEDURES.P) 192.605(a)

## Design and Construction - Materials

**1. Pipe and Components Materials General Qualification** *Does the operator have written specifications or procedures that require that materials for pipe and components meet the requirements of 192.53?* (DC.MA.GEN.P) 192.53 (192.55;192.59;192.63)

**2. Pipe and Components Materials General Qualification** *Does the operator have records showing that materials for pipe and components have met the requirements of 192.53?* (DC.MA.GEN.R) 192.53 (192.55;192.59;192.63)

**3. Steel Pipe Qualification** *Does the operator have written procedures or specifications that require steel pipe be qualified for use under Part 192 according to 192.55? (see considerations for requirements of 192.55)* (DC.MA.STEELPIPE.P) 192.55 (192.53)

**4. Steel Pipe Qualification** *Does the operator have records showing that the steel pipe is qualified for use under Part 192 according to 192.55? (see considerations for requirements of 192.55)* (DC.MA.STEELPIPE.R) 192.55(a) (192.55(b);192.55(c);192.55(d);192.55(e))

**5. Steel Pipe Qualification** *Do field observations confirm the steel pipe is qualified in accordance with 192.55?* (DC.MA.STEELPIPE.O) 192.55(a) (192.55(b);192.55(c);192.55(d);192.55(e))

**6. Plastic Pipe** *Does the operator have specifications that require plastic pipe meet the requirements of 192.53, 192.59, and other applicable requirements of this sub-part?* (DC.MA.PLASTIC.P) 192.53 (192.59)

**7. Plastic Pipe** *Do records indicate that plastic pipe is qualified in accordance with 192.59?* (DC.MA.PLASTIC.R) 192.53 (192.59)

**8. Plastic Pipe** *Do field observations confirm the plastic pipe meets the requirements of 192.53 and applicable requirements of this subpart?* (DC.MA.PLASTIC.O) 192.53 (192.59)

**9. Marking of Materials** *Does the operator have specifications requiring pipe, valves, and fittings to be marked according to the requirements of 192.63?* (DC.MA.MARKING.P) 192.63

**10. Marking of Materials** *Do records indicate that pipe, valves, and fittings were marked as required?* (DC.MA.MARKING.R) 192.63

**11. Marking of Materials** *Do field observations confirm the pipe, valves, and fittings are marked according to the requirements of 192.63?* (DC.MA.MARKING.O) 192.63

**12. Railroad Transportation of Certain Pipe** *Does the operator have specifications requiring that railroad transportation for certain pipe (see considerations) is in accordance with 192.65(a) and API RP 5L1? (DC.MA.RAILTRANSPORT.P) 192.65(a) (192.53(a))*

**13. Railroad Transportation of Certain Pipe** *Does the operator have records showing that railroad transportation for certain pipe (see considerations) was in accordance with 192.65(a) and API RP 5L1? (DC.MA.RAILTRANSPORT.R) 192.65(a)*

**14. Railroad Transportation of Certain Pipe** *Do field observations confirm that railroad transportation for certain pipe (see considerations) was in accordance with 192.65(a) and API RP 5L1? (DC.MA.RAILTRANSPORT.O) 192.65(a)*

**15. Barge Transportation of Certain Pipe** *Does the operator have specifications requiring that ship or barge transportation for certain pipe (see considerations) is in accordance with 192.65(b) and API RP 5LW? (DC.MA.BARGETRANSPORT.P) 192.65(b)*

**16. Barge Transportation of Certain Pipe** *Does the operator have records showing that ship or barge transportation for certain pipe (see considerations) is in accordance with 192.65(b) and API RP 5LW? (DC.MA.BARGETRANSPORT.R) 192.65(b)*

**17. Barge Transportation of Certain Pipe** *Do field observations confirm that the operator has used ship or barge transportation for certain pipe (see considerations) in accordance with 192.65(b) and API RP 5LW? (DC.MA.BARGETRANSPORT.O) 192.65(b)*

**18. Truck Transportation of Certain Pipe** *Does the operator have specifications requiring that truck transportation for certain pipe (see considerations) is in accordance with 192.65(c) and API RP 5LT? (DC.MA.TRUCKTRANSPORT.P) 192.65(c)*

**19. Truck Transportation of Certain Pipe** *Does the operator have records showing that truck transportation for certain pipe (see considerations) is in accordance with 192.65(c) and API RP 5LT? (DC.MA.TRUCKTRANSPORT.R) 192.65(c)*

**20. Truck Transportation of Certain Pipe** *Do field observations confirm that the operator has performed truck transportation for certain pipe (see considerations) in accordance with 192.65(c) and API RP 5LT? (DC.MA.TRUCKTRANSPORT.O) 192.65(c)*

## Design and Construction - Pressure Testing

**1. Hydrostatic Testing - General Requirements** *Does the process require pressure testing to be conducted for new segments of pipeline, or return to service segments of pipeline that are being relocated or replaced?* (DC.PT.PRESSTEST.P) 192.605(b) (192.303;192.503(a);192.503(b);192.503(c);192.503(d);192.503(e))

**2. Hydrostatic Testing - General Requirements** *Do records indicate that pressure testing is conducted in accordance with 192.503?* (DC.PT.PRESSTEST.R) 192.503(a) (192.503(b);192.503(c);192.503(d);192.503(e))

**3. Hydrostatic Testing - General Requirements** *Is pressure testing conducted in accordance with 192.503?* (DC.PT.PRESSTEST.O) 192.503(a) (192.503(b);192.503(c);192.503(d);192.503(e))

**4. Hydrostatic Testing - Strength Test (High) - 30% or more SMYS** *Does the process require that, as applicable to the project, sections of a pipeline operating at a hoop stress equal to or greater than 30% of SMYS be strength tested in accordance with the requirements of 192.505?* (DC.PT.PRESSTESTHIGHSTRESS.P) 192.505(a) (192.143(a);192.505(b);192.505(c);192.505(d);192.143(b);192.143(c))

**5. Hydrostatic Testing - Strength Test (High) - 30% or more SMYS** *Do records indicate that the sections of a pipeline operating at a hoop stress equal to or greater than 30% of SMYS were strength tested in accordance with the requirements of 192.505?* (DC.PT.PRESSTESTHIGHSTRESS.R) 192.505(a) (192.143(a);192.517(a);192.505(b);192.505(c);192.505(d);192.143(b);192.143(c))

**6. Hydrostatic Testing - Strength Test (High) - 30% or more SMYS** *Do field observations confirm that sections of a pipeline operating at a hoop stress equal to or greater than 30% of SMYS are strength tested in accordance with the requirements of 192.505?* (DC.PT.PRESSTESTHIGHSTRESS.O) 192.505(a) (192.143(a);192.505(b);192.505(c);192.505(d);192.143(b);192.143(c))

**7. Hydrostatic Testing - Plastic Pipelines** *Does the process require that, as applicable to the project, sections of a plastic pipe must be tested in accordance with the requirements of 192.513?* (DC.PT.PRESSTESTPLASTIC.P) 192.513(a) (192.143(a);192.121(a);192.513(b);192.513(c);192.513(d);192.143(b);192.143(c);192.121(b);192.121(c);192.121(d);192.121(e);192.121(f))

**8. Hydrostatic Testing - Plastic Pipelines** *Do records indicate that the sections of a plastic pipeline were tested in accordance with the requirements of 192.513? (DC.PT.PRESSTESTPLASTIC.R) 192.513(a) (192.143(a);192.517(b);192.513(c);192.513(d);192.143(b);192.143(c))*

**9. Hydrostatic Testing - Plastic Pipelines** *Do field observations confirm that sections of a plastic pipeline are tested in accordance with the requirements of 192.513? (DC.PT.PRESSTESTPLASTIC.O) 192.513(a) (192.143(a);192.513(b);192.513(c);192.513(d);192.143(b);192.143(c))*

**10. Hydrostatic Testing - Environmental Protection** *Does the process require that, as applicable to the project, while conducting tests under Subpart J – Test Requirements, the test medium will be disposed of in a manner that will minimize damage to the environment? (DC.PT.PRESSTESTENVIRON.P) 192.515(b) (192.629(a);192.629(b))*

**11. Hydrostatic Testing - Environmental Protection** *Do records indicate while conducting tests under Subpart J – Test Requirements, the test medium disposal was conducted in a manner that minimized damage to the environment? (DC.PT.PRESSTESTENVIRON.R) 192.515(b) (192.629(a);192.629(b))*

**12. Hydrostatic Testing - Environmental Protection** *Do field observations confirm while conducting tests under Subpart J – Test Requirements, the test medium was disposed of in an environmentally sound manner? (DC.PT.PRESSTESTENVIRON.O) 192.515(b) (192.629(a);192.629(b))*

**13. Hydrostatic Testing - Safety During Testing** *Does the process require that, as applicable to the project, while conducting tests under Subpart J – Test Requirements, every reasonable precaution is taken to protect its employees and the general public throughout the testing? (DC.PT.PRESSTESTSAFETY.P) 192.515(a) (192.629(a);192.629(b))*

**14. Hydrostatic Testing - Safety During Testing** *Do records indicate while conducting tests under Subpart J – Test Requirements, every reasonable precaution was taken to protect its employees and the general public throughout the testing? (DC.PT.PRESSTESTSAFETY.R) 192.515(a) (192.629(a);192.629(b))*

**15. Hydrostatic Testing - Safety During Testing** *Do field observations confirm while conducting tests under Subpart J – Test Requirements, every reasonable precaution is taken to protect its employees and the general public throughout the testing? (DC.PT.PRESSTESTSAFETY.O) 192.515(a) (192.629(a);192.629(b))*

**16. Hydrostatic Testing - Records** *Does the process require that, as applicable to the project, creation and retention of a record of each Subpart J test for the required duration?* (DC.PT.PRESSTESTRECORD.P) 192.517(a) (192.517(b))

**17. Hydrostatic Testing - Records** *Do records indicate creation and retention of a record for each Subpart J test performed for the required duration?* (DC.PT.PRESSTESTRECORD.R) 192.517(a) (192.517(b))

## Design and Construction - Pressure Testing - Low Pressure

**1. Hydrostatic Testing - General Requirements** *Does the process require pressure testing to be conducted for new segments of pipeline, or return to service segments of pipeline that are being relocated or replaced?* (DC.PT.PRESSTEST.P) 192.605(b) (192.303;192.503(a);192.503(b);192.503(c);192.503(d);192.503(e))

**2. Hydrostatic Testing - General Requirements** *Do records indicate that pressure testing is conducted in accordance with 192.503?* (DC.PT.PRESSTEST.R) 192.503(a) (192.503(b);192.503(c);192.503(d);192.503(e))

**3. Hydrostatic Testing - General Requirements** *Is pressure testing conducted in accordance with 192.503?* (DC.PT.PRESSTEST.O) 192.503(a) (192.503(b);192.503(c);192.503(d);192.503(e))

**4. Hydrostatic Testing - Strength Test (Low) - Less than 30% SMYS & Above 100 psig** *Does the process require that, as applicable to the project, sections of a pipeline operating at a hoop stress less than 30% of SMYS and at or above 100 psig be tested in accordance with the requirements of 192.507?* (DC.PT.LOWPRESS.PRESSTESTLOWSTRESS.P) 192.507 (192.505;192.515;ANSI/GPTC Z380.1-2018 Appendix G-192-9)

**5. Hydrostatic Testing - Strength Test (Low) - Less than 30% SMYS & Above 100 psig** *Do records indicate that, as applicable to the project, sections of a pipeline operating at a hoop stress less than 30% of SMYS and at or above 100 psig were tested in accordance with the requirements of 192.507?* (DC.PT.LOWPRESS.PRESSTESTLOWSTRESS.R) 192.507 (192.505;192.515;192.517;ANSI/GPTC Z380.1-2018 Appendix G-192-9)

**6. Hydrostatic Testing - Strength Test (Low) - Less than 30% SMYS & Above 100 psig** *Do field observations confirm that sections of a pipeline operating at a hoop stress less than 30% of SMYS and at or above 100 psig are tested in accordance with the requirements of 192.507? (DC.PTLOWPRESS.PRESSTESTLOWSTRESS.O) 192.507 (192.505;192.515;ANSI/GPTC Z380.1-2018 Appendix G-192-9)*

**7. Hydrostatic Testing - Leak Test Pipeline Below 100 psig** *Does the process require that, as applicable to the project, sections of a pipeline operated below 100 psig shall be leak tested in accordance with the section requirements of 192.509 (except for service lines and plastic pipelines)? (DC.PTLOWPRESS.PRESSTEST100PSIG.P) 192.509 (192.143)*

**8. Hydrostatic Testing - Leak Test Pipeline Below 100 psig** *Do records indicate that the sections of a pipeline operated below 100 psig were leak tested in accordance with the section requirements of 192.509 (except for service lines and plastic pipelines)? (DC.PTLOWPRESS.PRESSTEST100PSIG.R) 192.509 (192.143;192.517)*

**9. Hydrostatic Testing - Leak Test Pipeline Below 100 psig** *Do field observations confirm that sections of a pipeline operated below 100 psig are leak tested in accordance with the requirements of 192.509 (except for service lines and plastic pipelines)? (DC.PTLOWPRESS.PRESSTEST100PSIG.O) 192.509 (192.143)*

**10. Hydrostatic Testing - Service Lines** *Does the process require that, as applicable to the project, service line segments (other than plastic) shall be leak tested before being placed in service in compliance with the requirements of 192.511? (DC.PTLOWPRESS.PRESSTESTSERVICE.P) 192.511(a) (192.143(a);192.511(b);192.511(c);192.143(b))*

**11. Hydrostatic Testing - Service Lines** *Do records indicate that service line segments (other than plastic) were leak tested before being placed in service in compliance with the requirements of 192.511? (DC.PTLOWPRESS.PRESSTESTSERVICE.R) 192.511(a) (192.143(a);192.517(b);192.143(b);192.511(b);192.511(c))*

**12. Hydrostatic Testing - Service Lines** *Do field observations confirm that service line segments (other than plastic) are leak tested before being placed in service in compliance with the requirements of 192.511? (DC.PTLOWPRESS.PRESSTESTSERVICE.O) 192.511(a) (192.143(a);192.511(b);192.143(b);192.511(c))*

**13. Hydrostatic Testing - Environmental Protection** *Does the process require that, as applicable to the project, while conducting tests under Subpart J – Test Requirements, the test medium will be disposed of in a manner that will minimize damage to the environment? (DC.PT.PRESSTESTENVIRON.P) 192.515(b) (192.629(a);192.629(b))*

**14. Hydrostatic Testing - Environmental Protection** *Do records indicate while conducting tests under Subpart J – Test Requirements, the test medium disposal was conducted in a manner that minimized damage to the environment?* (DC.PT.PRESSTESTENVIRON.R) 192.515(b) (192.629(a);192.629(b))

**15. Hydrostatic Testing - Environmental Protection** *Do field observations confirm while conducting tests under Subpart J – Test Requirements, the test medium was disposed of in an environmentally sound manner?* (DC.PT.PRESSTESTENVIRON.O) 192.515(b) (192.629(a);192.629(b))

**16. Hydrostatic Testing - Safety During Testing** *Does the process require that, as applicable to the project, while conducting tests under Subpart J – Test Requirements, every reasonable precaution is taken to protect its employees and the general public throughout the testing?* (DC.PT.PRESSTESTSAFETY.P) 192.515(a) (192.629(a);192.629(b))

**17. Hydrostatic Testing - Safety During Testing** *Do records indicate while conducting tests under Subpart J – Test Requirements, every reasonable precaution was taken to protect its employees and the general public throughout the testing?* (DC.PT.PRESSTESTSAFETY.R) 192.515(a) (192.629(a);192.629(b))

**18. Hydrostatic Testing - Safety During Testing** *Do field observations confirm while conducting tests under Subpart J – Test Requirements, every reasonable precaution is taken to protect its employees and the general public throughout the testing?* (DC.PT.PRESSTESTSAFETY.O) 192.515(a) (192.629(a);192.629(b))

**19. Hydrostatic Testing - Records** *Does the process require that, as applicable to the project, creation and retention of a record of each Subpart J test for the required duration?* (DC.PT.PRESSTESTRECORD.P) 192.517(a) (192.517(b))

**20. Hydrostatic Testing - Records** *Do records indicate creation and retention of a record for each Subpart J test performed for the required duration?* (DC.PT.PRESSTESTRECORD.R) 192.517(a) (192.517(b))

## Design and Construction - Special Permits

**1. Special Permit/Waiver: Replacement of Pipe in a Special Permit Area** *Is the pipeline and applicable facilities being replaced in accordance with the design and construction requirements of Part 192 and the conditions of the Special Permit?* (DC.SP.SP.O) 190.341(d)(2) (Special Permit)

## Design and Construction - Training and Qualification

**1. Covered Tasks - Construction Maintenance** *Does the process include covered tasks relating to "construction-type" maintenance?* (DC.TQ.OQCONSTMAINT.P) 192.805(a) (Operators OQ program manual)

**2. Abnormal Operating Conditions** *Do records show evaluation of qualified individuals for recognition and reaction to AOCs?* (DC.TQ.ABNORMAL.R) 192.807(a) (192.803)

**3. Skills and Knowledge of Personnel Performing Covered Tasks - Contractor Employees** *Are qualification records maintained for contractor personnel?* (DC.TQ.OQCONTRACTOR.R) 192.807(a) (Operators OQ program manual)

**4. Skills and Knowledge of Personnel Performing Covered Tasks - Contractor Employees** *Do selected contractor individuals performing covered tasks demonstrate adequate skills and knowledge?* (DC.TQ.OQCONTRACTOR.O) 192.805(b) (Operators OQ program manual)

**5. Qualification Records - Operator Employee** *Are qualification records maintained for operator personnel?* (DC.TQ.RECORDS.R) 192.807(a) (Operators OQ program manual)

**6. Skills and Knowledge of Personnel Performing Covered Tasks - Operator Employee** *Do selected operator individuals performing covered tasks demonstrate adequate skills and knowledge?* (DC.TQ.OQPLANEMPLOYEE.O) 192.805(b) (Operators OQ program manual)

**7. Qualification of Personnel Who Oversee and Perform Excavations and Backfilling**

**Operations** *Do records demonstrate individuals who oversee marking, trenching and backfilling operations are qualified?* (DC.TQ.EXCAVATE.R) 192.807(a) (ADB-06-01)

**8. Qualification of Personnel Who Oversee and Perform Excavations and Backfilling**

**Operations** *Do selected individuals who oversee marking, trenching and backfilling operations demonstrate adequate skills and knowledge?* (DC.TQ.EXCAVATE.O) 192.805(b) (ADB-06-01)

**9. Qualification of Personnel Performing Hot Taps** *Do records document the qualification of personnel performing hot taps?* (DC.TQ.HOTTAP.R) 192.807(a) (192.627)

**10. Qualification of Personnel Performing Hot Taps** *Do personnel performing hot taps demonstrate adequate skills and knowledge?* (DC.TQ.HOTTAP.O) 192.805(b) (192.627)

## **Emergency Preparedness and Response - Emergency Response**

**1. Emergency Plan Review** *Does the process include a requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year?* (EP.ERG.REVIEW.P) 192.605(a)

**2. Emergency Plan Review** *Have annual reviews been conducted of the emergency plans and procedures as required, and any updates completed as appropriate?* (EP.ERG.REVIEW.R) 192.605(a)

**3. Distribution of Emergency Plan and Procedures** *Are supervisors provided the applicable portions of the emergency plan and procedures?* (EP.ERG.LOCATION.O) 192.615(b)(1)

**4. Incident Investigation Data** *Does the process include the steps necessary for the gathering of data needed for reporting incidents under Part 191 of this chapter in a timely and effective manner?* (EP.ERG.INCIDENTDATA.P) 192.605(b)(4) (191.5(a))

**5. Receiving Notices** *Does the emergency plan include procedures for receiving, identifying, and classifying notices of events which need immediate response?* (EP.ERG.NOTICES.P) 192.615(a)(1)

**6. Receiving Notices** *Do records indicate receiving, identifying, classifying and communication of notices of events requiring immediate response in accordance with procedures?* (EP.ERG.NOTICES.R) 192.615(a)(1)

**7. Emergency Response Communication** *Does the emergency plan include procedures for establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials?* (EP.ERG.COMMSYS.P) 192.615(a) (192.615(a)(2))

**8. Emergency Response** *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?* (EP.ERG.RESPONSE.P) 192.615(a) (192.615(a)(3);192.615(a)(11);192.615(b)(1))

**9. Emergency Response** *Does the process include procedures for ensuring the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency?* (EP.ERG.READINESS.P) 192.615(a) (192.615(a)(4))

**10. Emergency Response Readiness** *Are personnel, equipment, tools, and materials needed at the scene of an emergency available as required by the procedures?* (EP.ERG.READINESS.O) 192.615(a)(4)

**11. Emergency Response - Actions** *Does the emergency plan include procedures for taking actions directed toward protecting people first and then property?* (EP.ERG.PUBLICPRIORITY.P) 192.615(a) (192.615(a)(5))

**12. Emergency Response** *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?* (EP.ERG.PRESSREDUCESD.P) 192.615(a) (192.615(a)(6))

**13. Emergency Response - Hazards** *Does the emergency plan include procedures for making safe any actual or potential hazard to life or property?* (EP.ERG.PUBLICHAZ.P) 192.605(a) (192.615(a)(7))

**14. Public Official Notification** *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?* (EP.ERG.AUTHORITIES.P) 192.615(a) (192.615(a)(8))

**15. Service Outage Restoration** *Does the emergency plan include procedures for safely restoring any service outage?* (EP.ERG.OUTAGERESTORE.P) 192.615(a) (192.615(a)(9))

**16. Incident Investigation Actions** *Does the process include procedures for beginning action under 192.617, if applicable, as soon after the end of the emergency as possible?* (EP.ERG.INCIDENTACTIONS.P) 192.615(a) (192.615(a)(10))

**17. Incident Investigation** *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?* (EP.ERG.INCIDENTANALYSIS.P) 192.617

**18. Incident Investigation** *Do records indicate actions initiated to analyze accidents and failures, including the collection of appropriate samples for laboratory examination to determine the causes of the failure and minimize the possibility of recurrence, in accordance with procedures?* (EP.ERG.INCIDENTANALYSIS.R) 192.605(a) (192.617)

**19. Emergency Response Performance** *Does the process include detailed steps for reviewing employee activities to determine whether the procedures were effectively followed in each emergency?* (EP.ERG.POSTEVTREVIEW.P) 192.615(b)(3)

**20. Emergency Response Performance** *Do records indicate review of employee activities to determine whether the procedures were effectively followed in each emergency?* (EP.ERG.POSTEVTREVIEW.R) 192.605(a) (192.615(b)(1);192.615(b)(3))

**21. Liaison with Public Officials** *Does the process include steps for establishing and maintaining liaison with appropriate fire, police and other public officials and utility owners?* (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)

**22. Liaison with Public Officials** *Do records indicate that liaison has been established and maintained with appropriate fire, police, public officials, and utility owners?* (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)

## Facilities and Storage - Compressor Station System Protection

**1. Compressor Station Design/Construction - Fire Protection** *Do compressor stations have adequate fire protection facilities?* (FS.CSSYSROT.CMPFP.O) 192.171(a)

**2. Compressor Station Gas Detection** *Have adequate gas detection and alarm systems been installed in selected applicable compressor buildings?* (FS.CSSYSROT.CMPGASDET.O) 192.736(a) (192.736(b))

**3. Compressor Station Design/Construction - Gas Engine Mufflers** *Are gas engines in compressor stations equipped with mufflers that prevent gas from being trapped in the muffler?* (FS.CSSYSROT.CMPGASENGMFL.O) 192.171(e)

**4. Compressor Station Design/Construction - Gas Engine Shutdown** *Are compressor station gas engines that operate with pressure gas injection equipped so that stoppage of the engine will result in the fuel being automatically shut off and the engine distribution manifold being vented?* (FS.CSSYSROT.CMPGASENGSD.O) 192.171(d)

**5. Compressor Station Design/Construction - Lubrication** *Do compressor units have shutdown or alarm devices that will operate in the event of inadequate heating or lubrication?* (FS.CSSYSROT.CMPLUBPROT.O) 192.171(c)

**6. Compressor Station Design/Construction - Over-Speed Protection** *Do compressor stations' prime movers other than electrical induction or synchronous motors have automatic shutdown devices that will prevent over-speed of the prime mover or the unit being driven?* (FS.CSSYSROT.CMPOVSPD.O) 192.171(b)

**7. Compressor Station Design/Construction - Pressure Relief** *Are pressure relief/limiting devices inside a compressor station designed, installed, and inspected properly?* (FS.CSSYSROT.CMPRELIEF.O) 192.199  
(192.731(a);192.731(b);192.731(c))

**8. Compressor Station Design/Construction - Distribution Supply ESD** Does each compressor station that supplies gas directly to a distribution system (with no other adequate sources of gas available) have an emergency shutdown system that will not function at the wrong time or cause unintended outages? (FS.CSSYSROT.ESDDISTSD.O) 192.167(b)

**9. Compressor Station Design/Construction - ESD Electrical** Does each compressor station have an emergency shutdown system that is capable of shutting down electrical facilities (except emergency and equipment protection circuits) near gas headers and within compressor buildings? (FS.CSSYSROT.ESDELECSO.O) 192.167(a)(3)(i) (192.167(a)(3)(ii))

**10. Compressor Station Design/Construction - ESD Gas Block** Does each compressor station have an emergency shutdown system that is capable of blocking gas out of the station and blow down the station piping? NOTE: Not required for field compressor stations of 1,000 horsepower (746 kilowatts) or less. (FS.CSSYSROT.ESDGASBLK.O) 192.167(a)(1)

**11. Compressor Station Design/Construction - ESD Gas Discharge** Does each compressor station have an emergency shutdown system that is capable of safely discharging blowdown gas from the blowdown piping at a location where the gas will not create a hazard? (FS.CSSYSROT.ESDGASDISCH.O) 192.167(a)(2)

**12. Compressor Station Design/Construction - ESD** Does each compressor station have an emergency shutdown system that is capable of shutting down gas compressing equipment and gas fires in the vicinity of gas headers and compressor buildings? (FS.CSSYSROT.ESDGASSD.O) 192.167(a)(3)

**13. Compressor Station Design/Construction - ESD Locations** Does each compressor station have an emergency shutdown system that is capable of being operated from at least two locations which are: 1) Outside the gas area of the station, 2) Near the exit gates, if the station is fenced, or near emergency exits, if not fenced, 3) And not more than 500 feet (153 meters) from the limits of the station? (FS.CSSYSROT.ESDLOCATION.O) 192.167(a)(4)

**14. Compressor Station Design/Construction - Unattended Platform ESD** Does each unattended platform compressor station located offshore or in inland navigable waters have an emergency shutdown system that will actuate automatically in the event of the following occurrences? 1) When gas pressure equals the MAOP plus 15 percent and, 2) When an uncontrolled fire occurs on the platform. (FS.CSSYSROT.UNATTPLATCMPSD.O) 192.167(c)(1)

**15. Compressor Station Design/Construction - Platform ESD** Does each platform compressor station, located offshore or in inland navigable waters, within a building have an emergency shutdown system that will actuate automatically in the event of the following occurrences? 1) When an uncontrolled fire occurs in the building and, 2) When the concentration of gas in the air within the building reaches 50 percent of the lower explosive limit that has a source of ignition. (FS.CSSYSROT.PLATCMPSD.O) 192.167(c)(2)

**16. Compressor Station Design/Construction - MAOP** *Do compressor stations have pressure relief or other suitable protective devices with sufficient capacity and sensitivity so as to protect station piping from exceed 110% of MAOP?* (FS.CSSYSROT.CMPMAOP.O) 192.169(a)

**17. Compressor Station Design/Construction - Relief Discharge** *Do pressure relief valves exhaust gas to a location where the gas will not cause a hazard?* (FS.CSSYSROT.RELIEFDISCH.O) 192.169(b)

**18. Compressor Station Design/Construction - Pressure Relief** *Does the process provide adequate detail for inspection and testing of compressor station pressure relief devices with the exception of rupture disks?* (FS.CSSYSROT.CMPRELIEF.P) 192.605(b)(1) (192.731(a);192.731(b);192.731(c))

**19. Compressor Station Design/Construction - Pressure Relief** *Do records document with adequate detail that all inspection and testing of compressor station pressure relief devices with the exception of rupture disks have occurred at the required interval?* (FS.CSSYSROT.CMPRELIEF.R) 192.709(b) (192.709(c);192.731(a);192.731(b);192.731(c))

**20. Compressor Station Design/Construction - Relief Capacity** *Do pressure relieving/limiting stations located within the confines of a compressor station have sufficient capacity and are they set to limit the pressures to no more than allowed?* (FS.CSSYSROT.RELIEFCAPC.O) 192.201(a) (192.201(b);192.201(c))

**21. Compressor Stations Emergency Shutdown Test** *Does the process provide adequate detail for inspecting and testing compressor station emergency shutdown devices at the required frequency?* (FS.CSSYSROT.CMPESDTEST.P) 192.605(b) (192.731(c))

**22. Compressor Stations Emergency Shutdown Device Test Frequency** *Do records document the inspection and testing of all compressor station emergency shutdown devices at the required frequency?* (FS.CSSYSROT.CMPESDTESTDEV.R) 192.709(c) (192.731(c))

**23. Compressor Station Design/Construction - Permanent Gas Detection** *Does the process adequately detail requirements of permanent gas detectors and alarms at compressor buildings?* (FS.CSSYSROT.CMPGASDETREQ.P) 192.605(b) (192.736(b))

**24. Compressor Station Design/Construction - Gas Detection** *Does the process give detail how gas detection and alarm systems in compressor stations will be maintained to function properly and do procedures require performance tests?* (FS.CSSYSROT.CMPGASDETOM.P) 192.605(b) (192.736(c))

**25. Compressor Station Design/Construction - Gas Detection** *Do records document that all compressor station gas detection and alarm systems are being maintained and tested as required?* (FS.CSSYSROT.CMPGASDETOM.R) 192.709(c) (192.736(c))

## Facilities and Storage - Compressor Stations

**1. Compressor Station Design/Construction - Control of Property** *Are onshore compressor buildings located on property under the control of the operator?* (FS.CS.BLDGLOC.O) 192.163(a) (192.163(b))

**2. Compressor Stations - Storage of Combustible Materials** *Are flammable/combustible materials stored as required and aboveground oil or gasoline storage tanks installed at compressor stations protected in accordance with NFPA No. 30, as required by 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.O) 192.735(a) (192.735(b))

**3. Compressor Station Design/Construction - Adjacent Property** *Are onshore main compressor buildings far enough from adjacent property to minimize the possibility of fire being conveyed to the compressor buildings from adjacent property?* (FS.CS.BLDGADJ.O) 192.163(a)

**4. Compressor Station Design/Construction - Exits** *Does each main compressor building operating floor have at least two separated, easily accessed and unobstructed exits to a place of safety, main compressor building exits that have door latches that can be readily opened without a key, and main compressor building exit doors mounted to swing outward?* (FS.CS.BLDGEXITS.O) 192.163(c)

**5. Compressor Station Design/Construction - Fire Fighting Space** *Do onshore main compressor buildings have enough open space around them to allow for free movement of fire-fighting equipment.* (FS.CS.BLDGSPACE.O) 192.163(a)

**6. Compressor Station Design/Construction - NFPA 70** *Does the equipment and wiring within compressor stations conform to National Electric Code, ANSI/NFPA 70, including the required posting or ready access of the permit?* (FS.CS.CMPNFPA70.O) 192.163(e)

**7. Compressor Station Design/Construction - Fence Gates** *Do fenced areas around compressor stations have at least two gates that provide for easy escape to place of safety, and do gates located within 200 feet of any compressor plant open outward and able to be opened from the inside without a key when the station is occupied?* (FS.CS.FENCEGATES.O) 192.163(d)

**8. Compressor Station Design/Construction - Building Materials** *Is each building on the compressor station site constructed of noncombustible materials if it contains either pipe that is more than 2 inches in diameter that contains gas under pressure or contains gas handling equipment other than gas utilization equipment used for station domestic purposes?* (FS.CS.BLDGCMBST.O) 192.163(b)

**9. Compressor Station Design/Construction - Separator Liquid** *Does each separator used to remove entrained liquids at compressor stations have: 1) manually operable means to remove liquids, and 2) have a means to handle slugs of liquid where there is a possibility that liquid slugs could be carried into compressors?* (FS.CS.SPTRLIQ.O) 192.165(b)(1) (192.165(b)(2))

**10. Compressor Station Design/Construction - Separator Code** *Do records indicate each separator used to remove entrained liquids at compressor stations is manufactured in accordance with applicable codes or requirements?* (FS.CS.SPTRCODE.R) 192.165(b)(3)

**11. Compressor Station Design/Construction - Separator Code** *Is each separator used to remove entrained liquids at compressor stations manufactured in accordance with applicable codes or requirements?* (FS.CS.SPTRCODE.O) 192.165(b)(3)

**12. Compressor Station Design/Construction - Ventilation** *Are compressor station buildings ventilated to ensure employees are not endangered by accumulation of gas in enclosed areas?* (FS.CS.CMPBLDGVENT.O) 192.173

**13. Compressor Station Design/Construction - Holder** *Are bottle and pipe type holders designed and installed properly?* (FS.CS.HOLDER.O) 192.175(a) (192.175(b))

**14. Compressor Station Design/Construction - Holder Location** *Are bottle type and pipe type holders located and constructed properly?* (FS.CS.HOLDERLOC.O) 192.177(a) (192.177(b))

**15. Compressor Station - Emergency Response Plan** *Are emergency response plans for selected compressor stations kept on site?* (FS.CS.CMPERP.O) 192.605(a) (192.615(b))

**16. Compressor Station Design/Construction - Start-Up and Shut-Down** *Does the process for start-up and shut-down have sufficient detail to ensure start-up and shut-down of compressor units in a manner designed to assure operation within the MAOP limits prescribed by this part, plus the build-up allowed for operation of pressure-limiting and control devices?* (FS.CS.CMPUSD.P) 192.605(b)(5) (192.605(b)(7))

**17. Compressor Station Design/Construction - Maintenance** *Does the process have sufficient detail for maintaining compressor stations, including provisions for isolating units or sections of pipe and for purging before returning to service?* (FS.CS.CMPMAINT.P) 192.605(b)(6)

**18. Compressor Stations - Storage of Combustible Materials** *Does the process include requirements for the storage of flammable/combustible materials and specify that aboveground oil or gasoline storage tanks being installed at compressor stations be protected in accordance with NFPA No. 30, as required of 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.P) 192.303 (192.735(a);192.735(b))

**19. Compressor Stations - Storage of Combustible Materials** *As applicable to the project, are flammable/combustible materials stored as required and aboveground oil or gasoline storage tanks installed at compressor stations protected in accordance with NFPA No. 30, as required by 192.735(b)?* (DC.COCMP.CMPCOMBUSTIBLE.R) 192.735(a) (192.735(b))

## Facilities and Storage - Facilities General

**1. Abandonment or Deactivation of Pipe and Facilities** *Does the process include adequate requirements for the abandonment and deactivation of pipelines and facilities?* (MO.GM.ABANDONPIPE.P) 192.605(b)(1) (192.727(a);192.727(b);192.727(c);192.727(d);192.727(e);192.727(f);192.727(g))

**2. Abandonment or Deactivation of Pipeline and Facilities** *Do records indicate pipelines and facilities were abandoned or deactivated in accordance with requirements?* (MO.GM.ABANDONPIPE.R) 192.709(c) (192.727(a);192.727(b);192.727(c);192.727(d);192.727(e);192.727(f);192.727(g))

**3. Vault Inspection** *What are process requirements for inspecting vaults having a volumetric internal content  $\geq 200$  cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?* (FS.FG.VAULTINSPECT.P) 192.605(b)(1) (192.749(a);192.749(b);192.749(c);192.749(d))

**4. Vault Inspection** *Do records document the adequacy of inspections of all vaults having an internal volume  $\geq 200$  cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?* (FS.FG.VAULTINSPECT.R) 192.709(c) (192.749(a);192.749(b);192.749(c);192.749(d))

**5. Vault Maintenance** *Are inspections of selected vaults with internal volume  $\geq 200$  cubic feet housing pressure regulating/limiting equipment adequate?* (FS.FG.VAULTINSPECT.O) 192.749(a) (192.749(b);192.749(c);192.749(d))

**6. Vaults Structural Design Requirements** *As applicable to the project, are vaults/pits installed as designed, and per the requirements of 192.183?* (DC.DPC.VAULT.O) 192.141 (192.183(a);192.183(b);192.183(c))

**7. Vaults Accessibility** *As applicable to the project, are vaults located in an accessible location?* (DC.DPC.VAULTACCESS.O) 192.141 (192.185(a))

**8. Vaults Sealing, Venting, and Ventilation** *As applicable to the project, are vaults/pits sealed, ventilated, or vented as required of 192.187?* (DC.DPC.VAULTSEAL.O) 192.141 (192.187(a);192.187(b);192.187(c))

**9. Vaults Drainage and Waterproofing** *As applicable to the project, are vaults installed to minimize water entrance, and have proper electrical equipment?* (DC.DPC.VAULTWATER.O) 192.141 (192.189(a);192.189(b);192.189(c))

## Facilities and Storage - Gas Storage Field (Aboveground)

- 1. Storage Field Atmospheric Corrosion Monitoring** *Does the process give adequate instruction for the inspection of aboveground pipeline segments located in storage fields for atmospheric corrosion?* (FS.GS.STORAGEATM.P) 192.605(b)(2) (192.481(a);192.481(b);192.481(c))
  
- 2. Storage field Atmospheric Corrosion Monitoring** *Do records document inspection of aboveground pipe located in storage fields for atmospheric corrosion?* (FS.GS.STORAGEATM.R) 192.491(c) (192.481(a);192.481(b);192.481(c))
  
- 3. Storage Field External Corrosion Control and Monitoring** *Are external corrosion monitoring procedures established for the field piping and related storage field facilities?* (FS.GS.STORAGECP.P) 192.605(b)(2) (192.463(a))
  
- 4. Storage Field External Corrosion Control and Monitoring** *Do records indicate that field piping and related storage field facilities are cathodically protected?* (FS.GS.STORAGECP.R) 192.491(c) (192.455(a);192.457(a);192.465(a))
  
- 5. Storage Field External Corrosion Control and Monitoring** *Are the cathodic protection practices for field piping and related storage field facilities adequate?* (FS.GS.STORAGECP.O) 192.463(a)
  
- 6. Storage Field Internal Corrosion Control and Monitoring** *Are internal corrosion monitoring procedures established for the field piping and related storage field facilities?* (FS.GS.STORAGEIC.P) 192.605(b)(2) (192.475(a);192.475(b);192.475(c);192.477)
  
- 7. Storage Field Internal Corrosion Control and Monitoring** *Do records indicate that field piping and related storage field facilities are being protected from internal corrosion?* (FS.GS.STORAGEIC.R) 192.491(c) (192.475(a))
  
- 8. Storage Field Controlling Gas Velocity - Internal Corrosion and Erosion** *Have target flow rates been determined for the field piping system?* (FS.GS.GASVELOCITY.R) 192.491(c) (192.475(a))
  
- 9. Storage Field Corrosion Inhibitor Use** *Has a corrosion inhibitor program been established for the field piping and related storage field facilities?* (FS.GS.INHIBITOR.R) 192.491(c) (192.477)

**10. Storage Field Maintenance Pigging** *Is maintenance pigging used to sweep the lines of sediments and/or scale?*  
(FS.GS.MAINTENANCEPIG.R) 192.491(c) (192.477)

**11. Storage Field Gas and Liquid Handling Facility Upsets** *Number of upsets - past 3 years?*  
(FS.GS.FACILITYUPSET.R) 192.709(c)

**12. Storage Field Failure and Rupture History** *Have any failures or ruptures occurred over the past 5 years?*  
(FS.GS.FAILURERUPTURE.R) 192.709(c)

**13. Storage Field O&M History** *Have any storage field pipelines been repaired over the past 5 years?*  
(FS.GS.OMHISTORY.R) 192.709(a)

**14. Storage Field Line Replacement** *Have any storage field pipelines been replaced over the past 5 years?*  
(FS.GS.LINEREPLACE.R) 192.709(a)

**15. Storage Field Leak Survey** *Are leak surveys in the storage field required to be conducted?* (FS.GS.LEAKSURVEY.P)  
192.605(e) (192.706)

**16. Storage Field Leak Survey** *Do records document storage field leak surveys?* (FS.GS.LEAKSURVEY.R) 192.709(c)  
(192.706)

**17. Storage Field Safety Devices and Systems** *Have a system safety analysis and safety analysis function evaluation chart been performed for the field piping and related storage facilities?* (FS.GS.OVERPRESSURE.R) 192.709(c)  
(192.739(a);192.739(b))

**18. Storage Field Valve Replacement** *Have any valves been replaced over the past 5 years?*  
(FS.GS.VALVEREPLACE.R) 192.709(b) (192.745(b))

## Facilities and Storage - Valves

**1. Valve Maintenance** *Does the process have requirements for transmission line valves that might be used in an emergency?* (FS.VA.CMPVLVTEST.P) 192.605(b) (192.745(a);192.745(b))

**2. Valve Maintenance** *Do records adequately document that compressor transmission line valves have been inspected and partially operated at the correct interval?* (FS.VA.CMPVLVTEST.R) 192.709(c) (192.745(a);192.745(b))

**3. Valve Maintenance** *Are transmission line valves maintained as required?* (FS.VA.CMPVLVMAINT.O) 192.745(a) (192.745(b))

## Integrity Management - Baseline Assessments

**1. IM Assessments - Environmental & Safety Risks** *Does the process include requirements for conducting integrity assessments in a manner that minimizes environmental and safety risks?* (IM.BA.BAENVIRON.P) 192.911(o) (192.919(e))

**2. IM Assessments - Environmental & Safety Risks** *Do records demonstrate that integrity assessments have been conducted in a manner that minimizes environmental and safety risks?* (IM.BA.BAENVIRON.R) 192.947(d) (192.911(o);192.919(e))

**3. IM Assessments - Methods** *Does the process include requirements for specifying an assessment method(s) that is best suited for identifying anomalies associated with specific threats identified for the covered segment?* (IM.BA.BAMETHODS.P) 192.919(b) (192.921(a);192.921(c);192.921(h))

**4. IM Assessments - Methods** *Do records demonstrate that the assessment method(s) specified is best suited for identifying anomalies associated with specific threats identified for the covered segment?* (IM.BA.BAMETHODS.R) 192.947(c) (192.919(b);192.921(a);192.921(c);192.921(h))

**5. IM Baseline Assessments - New HCAs/Newly Installed Pipe** *Does the process include requirements for updating the assessment plan for newly identified areas and newly installed pipe?* (IM.BA.BANEW.P) 192.911(p) (192.905(c);192.921(f);192.921(g))

**6. IM Baseline Assessments - New HCAs/Newly Installed Pipe** *Do records demonstrate that the assessment plan has been adequately updated for new HCAs and newly installed pipe?* (IM.BA.BANEW.R) 192.947(d) (192.905(c);192.911(p);192.921(f);192.921(g);192.620)

**7. IM Baseline Assessments - Prioritized Schedule** *Did the BAP process require a schedule for completing the assessment activities for all covered segments and consideration of applicable risk factors in the prioritization of the schedule?* (IM.BA.BASCHEDULE.P) 192.917(c) (192.919(c);192.921(b))

**8. IM Baseline Assessments - Prioritized Schedule** *Do records demonstrate that all BAP required assessments were completed as scheduled?* (IM.BA.BASCHEDULE.R) 192.947(c) (192.921(d))

**9. IM Assessments - Environmental & Safety Risks** *From field observations, are integrity assessments conducted in a manner that minimizes environmental and safety risks?* (IM.BA.BAENVIRON.O) 192.911(o) (192.919(e))

## Integrity Management - Continual Evaluation and Assessment

**1. Low Stress Reassessments** *Does the process include requirements for the "low stress reassessment" method to address threats of external and/or internal corrosion for pipelines operating below 30% SMYS?* (IM.CA.LOWSTRESSREASSESS.P) 192.941(a) (192.941(b);192.941(c))

**2. Reassessment Intervals** *Is the process for establishing the reassessment intervals consistent with 192.939 and ASME B31.8S-2004?* (IM.CA.REASSESSINTERVAL.P) 192.937(a) (192.939(a);192.939(b);192.913(c))

**3. Low Stress Reassessments** *Do records demonstrate that the implementation of "low stress reassessment" method to address threats of external and/or internal corrosion is adequate and being performed as required?* (IM.CA.LOWSTRESSREASSESS.R) 192.947(d) (192.941(a);192.941(b);192.941(c))

**4. Periodic Evaluations** *Does the process include requirements for a periodic evaluation of pipeline integrity based on data integration and risk assessment to identify the threats specific to each covered segment and the risk represented by these threats?* (IM.CA.PERIODICEVAL.P) 192.937(b) (192.917(a);192.917(b);192.917(c);192.917(d);192.917(e))

**5. Periodic Evaluations** *Do records demonstrate that periodic evaluations of pipeline integrity have been performed based on data integration and risk assessment to identify the threats specific to each covered segment and the risk represented by these threats?* (IM.CA.PERIODICEVAL.R) 192.947(d) (192.917(a);192.917(b);192.917(c);192.917(d);192.917(e);192.937(b))

**6. Reassessment Intervals** *Do records demonstrate that reassessment intervals were established consistent with the requirements of the operator's processes?* (IM.CA.REASSESSINTERVAL.R) 192.947(d) (192.937(a);192.939(a);192.939(b);192.913(c))

**7. IM Continual Assessments - Methods** *Is the approach for establishing reassessment method(s) consistent with the requirements in 192.937(c)?* (IM.CA.REASSESSMETHOD.P) 192.937(c) (192.931)

**8. IM Continual Assessments - Methods** *Do records document the assessment methods to be used and the rationale for selecting the appropriate assessment method?* (IM.CA.REASSESSMETHOD.R) 192.947(d) (192.937(c))

**9. Waiver from Reassessment Interval in Limited Situations** *Does the process include requirements for reassessment interval waivers (special permit per 190.341)?* (IM.CA.REASSESSWAIVER.P) 192.943(a) (192.943(b))

**10. Waiver from Reassessment Interval in Limited Situations** *Do records demonstrate that reassessment interval waivers (special permit per 190.341) have been adequately implemented, if applicable?* (IM.CA.REASSESSWAIVER.R) 192.947(d) (192.943(a);192.943(b))

**11. Deviation from Reassessment Requirements based on Exceptional Performance** *Does the process include requirements for deviations from reassessment requirements based on exceptional performance?* (IM.CA.REASSESEXCPERF.P) 192.913(a) (192.913(b);192.913(c))

**12. Deviation from Reassessment Requirements based on Exceptional Performance** *Do records demonstrate that deviations from reassessment requirements are based on exceptional performance and have been adequately handled, if applicable?* (IM.CA.REASSESEXCPERF.R) 192.947(d) (192.913(a);192.913(b);192.913(c))

## Integrity Management - High Consequence Areas

**1. IM High Consequence Areas - HCA Identification** *Does the process include the methods defined in 192.903 High Consequence Area (Method 1) and/or 192.903 High Consequence Area (Method 2) to be applied to each pipeline for the identification of high consequence areas?* (IM.HC.HCAID.P) 192.905(a)

**2. IM High Consequence Areas - HCA Identification** *Do records demonstrate that the identification of pipeline segments in high consequence areas was completed in accordance with process requirements?* (IM.HC.HCAID.R) 192.947(d) (192.905(a);192.907(a);192.911(a))

**3. IM High Consequence Areas - Identification Method 1 (Class Locations)** *Is the integrity management process adequate for identification of 192.903 High Consequence Areas using Method (1) for identification of HCAs?* (IM.HC.HCAMETHOD1.P) 192.903(1)(i) (192.903(1)(ii);192.903(1)(iii);192.903(1)(iv))

**4. IM High Consequence Areas - Identification Method 2 (Potential Impact Radius)** *Is the integrity management process adequate for identification of 192.903 High Consequence Areas using Method (2)?* (IM.HC.HCAMETHOD2.P) 192.903(2)(i) (192.903(2)(ii))

**5. IM High Consequence Areas - Newly Identified HCAs** *Does the process include a requirement for evaluation of new information that impacts, or creates a new, high consequence area?* (IM.HC.HCANEW.P) 192.905(c)

**6. IM High Consequence Areas - Newly Identified HCAs** *Do records demonstrate new information that impacts, or creates a new, high consequence area has been integrated with the integrity management program?* (IM.HC.HCANEW.R) 192.947(d) (192.905(c))

**7. IM High Consequence Areas - Potential Impact Radius** *Is the process for defining and applying potential impact radius (PIR) for establishment of high consequence areas consistent with the requirements of 192.903? (IM.HC.HCAPIR.P) 192.903 (192.905(a))*

**8. IM High Consequence Areas - Potential Impact Radius** *Do records demonstrate the use of potential impact radius (PIR) for establishment of high consequence areas consistent with requirements of 192.903? (IM.HC.HCAPIR.R) 192.947(d) (192.903;192.905(a))*

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

**10. IM High Consequence Areas - Identified Sites** *Do records indicate identification of identified sites being performed as required? (IM.HC.HCASITES.R) 192.947(d) (192.903;192.905(b))*

**11. IM High Consequence Areas - Identification Method 1 (Class Locations)** *Do records demonstrate that identification of 192.903 High Consequence Areas using Method (1) was adequate? (IM.HC.HCAMETHOD1.R) 192.947(d) (192.903 (1)(i);192.903(1)(ii);192.903(1)(iii);192.903(1)(iv))*

**12. IM High Consequence Areas - Identification Method 2 (Potential Impact Radius)** *Do records demonstrate that the identification of 192.903 High Consequence Areas using Method (2) was adequate? (IM.HC.HCAMETHOD2.R) 192.947(d) (192.905(a);192.903(2)(ii))*

**13. IM High Consequence Areas** *Are HCAs correctly identified per up-to-date information? (IM.HC.HCADATA.O) 192.905(c)*

## Integrity Management - Preventive and Mitigative Measures

**1. P&M Measures - General Requirements** *Does the process include requirements to identify additional measures to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a high consequence area?* (IM.PM.PMMGENERAL.P) 192.935(a)

**2. P&M Measures - General Requirements** *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?* (IM.PM.PMMGENERAL.R) 192.947(d) (192.935(a))

**3. P&M Measures - Third Party Damage** *Does the preventive and mitigative measure process include requirements that threats due to third party damage be addressed?* (IM.PM.PMMTPD.P) 192.917(e)(1) (192.935(b)(1);192.935(e))

**4. P&M Measures - Third Party Damage** *Do records demonstrate that preventive & mitigative measures have been implemented regarding threats due to third party damage as required by the process?* (IM.PM.PMMTPD.R) 192.947(d) (192.917(e)(1);192.935(b)(1);192.935(e))

**5. P&M Measures - Qualifications of Supervisory Personnel** *Does the process require that persons who implement preventive and mitigative measures or directly supervise excavation work be qualified?* (IM.PM.PMMREVQUAL.P) 192.915(c)

**6. P&M Measures - Qualifications of Supervisory Personnel** *Do records demonstrate that personnel who implement preventive and mitigative measures or directly supervise excavation work are qualified?* (IM.PM.PMMREVQUAL.R) 192.947(e) (192.915(c))

**7. P&M Measures - Third Party Damage (Special Cases)** *Does the process include requirements for preventive and mitigative measures for pipelines operating below 30% SMYS?* (IM.PM.PMMTPDSMYS.P) 192.935(d) (192.935(e);192 Appendix E Table E.II.1)

**8. P&M Measures - Third Party Damage (Special Cases)** *Do records demonstrate that preventive and mitigative measures for pipelines operating below 30% SMYS are being performed as required?* (IM.PM.PMMTPDSMYS.R) 192.947(d) (192.935(d);192.935(e);192 Appendix E Table E.II.1)

**9. P&M Measures - Outside Force Damage** *Does the process adequately address significant threats due to outside force (e.g., earth movement, floods, unstable suspension bridge)?* (IM.PM.PMMOF.P) 192.935(b)(2)

**10. P&M Measures - Outside Force Damage** *Do records demonstrate that significant threats due to outside force (e.g., earth movement, floods, unstable suspension bridge) are being adequately addressed?* (IM.PM.PMMOF.R) 192.947(d) (192.935(b)(2))

**11. P&M Measures - Automatic Shut-Off Valves or Remote Control Valves** *Does the process include requirements to decide if automatic shut-off valves or remote control valves represent an efficient means of adding protection to potentially affected high consequence areas?* (IM.PM.PMMASORCV.P) 192.935(c)

**12. P&M Measures - Automatic Shut-Off Valves or Remote Control Valves** *Do records demonstrate that the operator has determined, based on risk, whether automatic shut-off valves or remote control valves should be added to protect high consequence areas?* (IM.PM.PMMASORCV.R) 192.947(d) (192.935(c))

**13. P&M Measures - Implementation** *Have identified additional preventive and mitigative measures to reduce the likelihood or consequence of a pipeline failure in an HCA been implemented?* (IM.PM.PMMIMPLEMENT.O) 192.935(a)

**14. P&M Measures - Corrosion** *Does the process adequately account for taking required actions to address significant corrosion threats?* (IM.PM.PMPCORR.P) 192.933 (192.917(e)(5))

**15. P&M Measures - Corrosion** *Do records demonstrate that required actions are being taken to address significant corrosion threats as required?* (IM.PM.PMPCORR.R) 192.933 (192.917(e)(5))

## Integrity Management - Quality Assurance

**1. Quality Assurance** *Are quality assurance processes in place for risk management applications that meet the requirements of ASME B31.8S-2004, Section 12?* (IM.QA.QARM.P) 192.911(l)

**2. Invoking Non-Mandatory Statements in Standards** *Does the process include requirements that non-mandatory requirements (e.g., "should" statements) from industry standards or other documents invoked by Subpart O (e.g., ASME B31.8S-2004 and NACE SP0502-2010) be addressed by an appropriate approach? (IM.QA.IMNONMANDT.P) 192.7(a)*

**3. Personnel Qualification and Training Requirements** *Does the process include requirements to assure personnel involved in the integrity management program are qualified for their assigned responsibilities in accordance with the quality control plan and Part 192? (IM.QA.IMPERSONNEL.P) 192.915(a) (192.915(b);192.915(c);192.935(b)(1)(i);192.907(b))*

**4. Personnel Qualification and Training Requirements** *Do records demonstrate that personnel involved in the integrity management program are qualified for their assigned responsibilities? (IM.QA.IMPERSONNEL.R) 192.947(e) (192.915(a);192.915(b);192.915(c))*

**5. Quality Assurance** *Do records demonstrate that the quality assurance process for risk management applications is being completed as required by ASME B31.8S-2004, Section 12? (IM.QA.QARM.R) 192.947(d) (192.911(l))*

**6. Record Keeping** *Is the process adequate to assure that required records are maintained for the useful life of the pipeline? (IM.QA.RECORDS.P) 192.947(a) (192.947(b);192.947(c);192.947(d);192.947(e);192.947(f);192.947(g);192.947(h);192.947(i))*

**7. Management of Change** *Is the process for management of changes that may impact pipeline integrity adequate? (IM.QA.IMMOC.P) 192.911(k) (192.909(a);192.909(b))*

**8. Management of Change** *Do records demonstrate that changes that may impact pipeline integrity are being managed as required? (IM.QA.IMMOC.R) 192.947(d) (192.909(a);192.909(b);192.911(k))*

**9. Measuring Program Effectiveness** *Does the process for measuring IM program effectiveness include the elements necessary to conduct a meaningful evaluation? (IM.QA.IMPERFEFFECTIVE.P) 192.945(a) (192.913(b);192.951)*

**10. Measuring Program Effectiveness** *Do records demonstrate that the methods to measure Integrity Management Program effectiveness provide effective evaluation of program performance and result in program improvements where necessary? (IM.QA.IMPERFEFFECTIVE.R) 192.947(d) (192.913(b);192.945(a);192.951)*

**11. Performance Metrics** *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) 192.945(a) (192.913(b);192.951)

**12. Performance Metrics** *Do records demonstrate that performance metrics are providing meaningful insight into integrity management program performance?* (IM.QA.IMPERFMETRIC.R) 192.947(d) (192.913(b);192.945(a);192.951)

**13. Record Keeping** *Are required records being maintained for the life of the pipeline?* (IM.QA.RECORDS.R) 192.947(a) (192.947(b);192.947(c);192.947(d);192.947(e);192.947(f);192.947(g);192.947(h);192.947(i))

## Integrity Management - Risk Analysis

**1. Data Gathering** *Does the process include requirements to gather and integrate existing data and information on the entire pipeline that could be relevant to covered segments?* (IM.RA.RADATA.P) 192.917(b) (192.917(e)(1);192.911(k))

**2. Risk Analysis - Methodology** *Does the process include requirements for a risk assessment that follows ASME B31.8S-2004, Section 5, and that considers the identified threats for each covered segment?* (IM.RA.RAMETHOD.P) 192.917(c) (192.917(d))

**3. Threat Identification** *Do records demonstrate that all potential threats to each covered pipeline segment have been identified and evaluated?* (IM.RA.THREATID.R) 192.947(b) (192.917(a);192.917(e);192.913(b)(1))

**4. Data Gathering** *Do records demonstrate that existing data and information on the entire pipeline that could be relevant to covered segments being adequately gathered and integrated?* (IM.RA.RADATA.R) 192.947(b) (192.917(b);192.917(e)(1);192.911(k))

**5. Threat Identification** *Does the process include requirements to identify and evaluate all potential threats to each covered pipeline segment?* (IM.RA.THREATID.P) 192.917(a) (192.917(e);192.913(b)(1))

**6. Risk Analysis - Methodology** *Do records demonstrate that the risk assessment follows ASME B31.8S-2004, Section 5, and considers the identified threats for each covered segment?* (IM.RA.RAMETHOD.R) 192.947(b) (192.917(c);192.917(d))

**7. Risk Analysis - Determination of Risk** *Does the process include requirements for factors that could affect the likelihood of a release, and for factors that could affect the consequences of potential releases, be accounted for and combined in an appropriate manner to produce a risk value for each pipeline segment?* (IM.RA.RAFACTORS.P) 192.917(c)

**8. Risk Analysis - Determination of Risk** *Do records demonstrate that risk analysis data is combined in an appropriate manner to produce a risk value for each pipeline segment?* (IM.RA.RAFACTORS.R) 192.947(b) (192.917(c))

**9. Risk Analysis - Validation and Updates** *Does the process provide for revisions to the risk assessment if new information is obtained or conditions change on the pipeline segments?* (IM.RA.RAMOC.P) 192.917(c)

**10. Risk Analysis - Validation and Updates** *Was the risk assessment revised as necessary as new information is obtained or conditions change on the pipeline segments?* (IM.RA.RAMOC.R) 192.947(b) (192.917(c))

**11. Risk Analysis - Validation and Updates** *Are conditions on the pipeline segments accurately reflected in the appropriate risk assessment data and information?* (IM.RA.RAMOC.O) 192.917(c)

## Maintenance and Operations - Alternative MAOP

**1. Alternate MAOP Additional O&M** *Does the AMAOP process include additional O&M requirements?* (MO.AMAOP.ADDITIONALOM.P) 192.605(a) (192.620(d))

**2. Alternate MAOP Additional O&M** *Do records indicate the additional AMAOP O&M requirements were met?* (MO.AMAOP.ADDITIONALOM.R) 192.605(a) (192.620(d))

**3. Alternate MAOP Calculation** *Does the AMAOP process include appropriate factors and considerations for calculating the alternative MAOP?* (MO.AMAOP.CALC.P) 192.605(a) (192.620(a))

**4. Alternate MAOP Calculation** *Do records indicate appropriate calculation of the alternative MAOP?* (MO.AMAOP.CALC.R) 192.605(a) (192.620(a))

**5. Alternate MAOP Conditions** *Does the AMAOP process include conditions on the application of alternative MAOP?* (MO.AMAOP.CONDITIONS.P) 192.605(a) (192.620(b))

**6. Alternate MAOP Conditions** *Do records indicate the AMAOP process satisfied the conditions on application of an alternative MAOP?* (MO.AMAOP.CONDITIONS.R) 192.605(a) (192.620(b))

**7. Alternate MAOP Requirements** *Does the AMAOP process include AMAOP requirements?* (MO.AMAOP.REQUIREMENTS.P) 192.605(a) (192.620(c))

**8. Alternate MAOP Conditions** *Do records indicate the AMAOP requirements were met?* (MO.AMAOP.REQUIREMENTS.R) 192.605(a) (192.620(c))

**9. Alternate MAOP Overpressure Protection** *Does the AMAOP process include overpressure protection requirements?* (MO.AMAOP.OVERPRESS.P) 192.605(a) (192.620(e))

**10. Alternate MAOP Overpressure Protection** *Do records indicate that overpressure protection requirements were met?* (MO.AMAOP.OVERPRESS.R) 192.605(a) (192.620(e))

## Maintenance and Operations - Conversion to Service

**1. Conversion to Service** *If any pipelines were converted into Part 192 service, was a process developed addressing all the applicable requirements?* (MO.GC.CONVERSION.P) 192.14(a) (192.14(b))

**2. Conversion to Service** *Do records indicate the process was followed for converting any pipelines into Part 192 service?* (MO.GC.CONVERSION.R) 192.14(a) (192.14(b))

## Maintenance and Operations - Gas Pipeline Abnormal Operations

**1. Abnormal Operations** *Does the process fully address the responsibilities during and after an abnormal operation?* (MO.GOABNORMAL.ABNORMAL.P) 192.605(a) (192.605(c)(1))

**2. Abnormal Operations** *Did personnel respond to indications of abnormal operations as required by the process?* (MO.GOABNORMAL.ABNORMAL.R) 192.605(a) (192.605(c)(1))

**3. Abnormal Operations** *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?* (MO.GOABNORMAL.ABNORMALCHECK.P) 192.605(a) (192.605(c)(2))

**4. Abnormal Operations (Notify)** *Does the process include requirements for notifying responsible operator personnel when notice of an abnormal operation is received?* (MO.GOABNORMAL.ABNORMALNOTIFY.P) 192.605(a) (192.605(c)(3))

**5. Abnormal Operations Review** *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?* (MO.GOABNORMAL.ABNORMALREVIEW.P) 192.605(a) (192.605(c)(4))

**6. Abnormal Operations Review** *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?* (MO.GOABNORMAL.ABNORMALREVIEW.R) 192.605(a) (192.605(c)(4))

## Maintenance and Operations - Gas Pipeline Class Location

**1. Change in Class Location Confirmation or Revision of MAOP** *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?* (MO.GOCLASS.CLASSLOCATEREV.P) 192.605(b)(1) (192.611(a);192.611(b);192.611(c);192.611(d))

**2. Change in Class Location Confirmation or Revision of MAOP** *Was the MAOP in a pipeline segment confirmed or revised within 24 months as required?* (MO.GOCLASS.CLASSLOCATEREV.R) 192.605(b)(1) (192.611(a);192.611(b);192.611(c);192.611(d))

**3. Continuing Surveillance** *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?* (MO.GO.CONTSURVEILLANCE.P) 192.605(e) (192.613(a);192.613(b);192.703(b);192.703(c))

**4. Change in Class Location Confirmation or Revision of MAOP** *Are current ROW conditions and class locations consistent?* (MO.GOCLASS.CLASSLOCATEREV.O) 192.611(a)

**5. Change in Class Location Required Study** *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?* (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))

**6. Change in Class Location Required Study** *Do records indicate performance of the required study whenever the population along a pipeline increased or there was an indication that the pipe hoop stress was not commensurate with the present class location?* (MO.GOCLASS.CLASSLOCATESTUDY.R) 192.605(b)(1) (192.609(a);192.609(b);192.609(c);192.609(d);192.609(e);192.609(f))

**7. Continuing Surveillance** *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? (MO.GO.CONTSURVEILLANCE.R) 192.709(c) (192.613(a);192.613(b);192.703(b);192.703(c))*

**8. Continuing Surveillance** *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613? (MO.GO.CONTSURVEILLANCE.O) 192.613(a) (192.613(b);192.703(a);192.703(b);192.703(c))*

## Maintenance and Operations - Gas Pipeline MAOP

**1. Maximum Allowable Operating Pressure Determination** *Does the process include requirements for determining the maximum allowable operating pressure for a pipeline segment in accordance with 192.619? (MO.GOMAOP.MAOPDETERMINE.P) 192.605(b)(1) (192.619(a);192.619(b))*

**2. Normal Operations and Maintenance Procedures** *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? (MO.GOMAOP.MAOPLIMIT.P) 192.605(a) (192.605(b)(5))*

**3. Maximum Allowable Operating pressure** *Do records indicate determination of the MAOP of pipeline segments in accordance with 192.619 and limiting of the operating pressure as required? (MO.GOMAOP.MAOPDETERMINE.R) 192.709(c) (192.619(a);192.619(b))*

**4. Normal Operations and Maintenance Procedures** *Do records indicate operation within MAOP limits, plus the build-up allowed for operation of pressure-limiting and control devices, was assured while starting up and shutting down any part of the pipeline? (MO.GOMAOP.MAOPLIMIT.R) 192.603(b) (192.605(b)(5))*

## Maintenance and Operations - Gas Pipeline Maintenance

**1. Abandonment or Deactivation of Pipe and Facilities** *Does the process include adequate requirements for the abandonment and deactivation of pipelines and facilities?* (MO.GM.ABANDONPIPE.P) 192.605(b)(1) (192.727(a);192.727(b);192.727(c);192.727(d);192.727(e);192.727(f);192.727(g))

**2. Abandonment or Deactivation of Pipeline and Facilities** *Do records indicate pipelines and facilities were abandoned or deactivated in accordance with requirements?* (MO.GM.ABANDONPIPE.R) 192.709(c) (192.727(a);192.727(b);192.727(c);192.727(d);192.727(e);192.727(f);192.727(g))

**3. Dynamic Riser Inspection, Maintenance, and Monitoring Records on Offshore Floating Facilities** *Do records for Dynamic Riser Inspection, Maintenance, and Monitoring on Offshore Floating Facilities document the safe and reliable operation of these systems?* (MO.GM.DYNAMICRISER.R) 192.709(c) (192 Subpart L;192 Subpart M)

**4. Transmission Lines Record Keeping** *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?* (MO.GM.RECORDS.R) 192.605(b)(1) (192.243(f);192.709(a);192.709(b);192.709(c))

**5. Prevention of Accidental Ignition** *Are there processes for minimizing the danger of accidental ignition where gas constitutes a hazard of fire or explosion?* (MO.GM.IGNITION.P) 192.605(b)(1) (192.751(a);192.751(b);192.751(c))

**6. Prevention of Accidental Ignition** *Do records indicate personnel followed processes for minimizing the danger of accidental ignition where the presence of gas constituted a hazard of fire or explosion?* (MO.GM.IGNITION.R) 192.709 (192.751(a);192.751(b);192.751(c))

**7. Prevention of Accidental Ignition** *Are the operator's precautionary measures adequate on a gas transmission line where there exists the potential for accidental ignition?* (MO.GM.IGNITION.O) 192.751(a) (192.751(b);192.751(c))

**8. Transmission Lines Record Keeping** *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?* (MO.GM.RECORDS.P) 192.605(b)(1) (192.709(a);192.709(b);192.709(c))

**9. Valve Maintenance Transmission Lines** *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?* (MO.GM.VALVEINSPECT.P) 192.605(b)(1) (192.745(a);192.745(b))

**10. Valve Maintenance Transmission Lines** *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?* (MO.GM.VALVEINSPECT.R) 192.709(c) (192.745(a);192.745(b))

**11. Valve Maintenance Transmission Lines** *Are field inspection and partial operation of transmission line valves adequate?* (MO.GM.VALVEINSPECT.O) 192.745(a) (192.745(b))

**12. Vault Inspection** *What are process requirements for inspecting vaults having a volumetric internal content  $\geq 200$  cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?* (FS.FG.VAULTINSPECT.P) 192.605(b)(1) (192.749(a);192.749(b);192.749(c);192.749(d))

**13. Vault Inspection** *Do records document the adequacy of inspections of all vaults having an internal volume  $\geq 200$  cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?* (FS.FG.VAULTINSPECT.R) 192.709(c) (192.749(a);192.749(b);192.749(c);192.749(d))

**14. Vault Maintenance** *Are inspections of selected vaults with internal volume  $\geq 200$  cubic feet housing pressure regulating/limiting equipment adequate?* (FS.FG.VAULTINSPECT.O) 192.749(a) (192.749(b);192.749(c);192.749(d))

**15. Holders** *Does the process include systematic and routine testing and inspection of pipe-type or bottle-type holders?* (MO.GM.HOLDER.P) 192.605(a) (192.605(b)(10))

**16. Holders** *Do records indicate systematic and routine testing and inspection of pipe-type or bottle-type holders?* (MO.GM.HOLDER.R) 192.603(b) (192.605(b)(10))

**17. Maintenance of Equipment Used in Joining Plastic Pipe** *Does the process require maintaining equipment used in joining plastic pipe in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints?* (MO.GM.EQUIPPLASTICJOINT.P) 192.605(b) (192.756)

**18. Maintenance of Equipment Used in Joining Plastic Pipe** *Do records indicate equipment used in joining plastic pipe was maintained in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints?* (MO.GM.EQUIPPLASTICJOINT.R) 192.603(b) (192.756)

**19. Maintenance of Equipment Used in Joining Plastic Pipe** *Is proper maintenance being performed on equipment used in joining plastic pipe in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints?* (MO.GM.EQUIPPLASTICJOINT.O) 192.756

## Maintenance and Operations - Gas Pipeline Odorization

**1. Odorization of Gas** *Does the process ensure appropriate odorant levels are contained in its combustible gases in accordance with 192.625?* (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))

**2. Odorization of Gas** *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?* (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))

**3. Odorization of Gas** *Is sampling of combustible gases adequate using an instrument capable of determining the percentage of gas in air at which it becomes readily detectable?* (MO.GOODOR.ODORIZE.O) 192.625(f)

## Maintenance and Operations - Gas Pipeline Operations

**1. Continuing Surveillance** *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?* (MO.GO.CONTSURVEILLANCE.P) 192.605(e) (192.613(a);192.613(b);192.703(b);192.703(c))

**2. Continuing Surveillance** *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?* (MO.GO.CONTSURVEILLANCE.R) 192.709(c) (192.613(a);192.613(b);192.703(b);192.703(c))

**3. Continuing Surveillance** *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?* (MO.GO.CONTSURVEILLANCE.O) 192.613(a) (192.613(b);192.703(a);192.703(b);192.703(c))

**4. Pipeline Purging** *Does the process include requirements for purging of pipelines in accordance with 192.629?* (MO.GO.PURGE.P) 192.605(b)(1) (192.629(a);192.629(b))

**5. Normal Maintenance and Operations** *Does the process include a requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year?* (MO.GO.OMANNUALREVIEW.P) 192.605(a)

**6. Normal Maintenance and Operations** *Has the operator conducted annual reviews of the written procedures or processes in the manual as required?* (MO.GO.OMANNUALREVIEW.R) 192.605(a)

**7. Normal Operations and Maintenance Procedures - Review** *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?* (MO.GO.OMEFFECTREVIEW.P) 192.605(a) (192.605(b)(8))

**8. Normal Operations and Maintenance Procedures - Review** *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?* (MO.GO.OMEFFECTREVIEW.R) 192.605(a) (192.605(b)(8))

**9. Normal Operations and Maintenance Procedures - History** *Does the process include requirements for making construction records, maps and operating history available to appropriate operating personnel?* (MO.GO.OMHISTORY.P) 192.605(a) (192.605(b)(3))

**10. Normal Operations and Maintenance Procedures - History** *Are construction records, maps, and operating history available to appropriate operating personnel?* (MO.GO.OMHISTORY.R) 192.605(a) (192.605(b)(3))

**11. Normal Operations and Maintenance Procedures - History** *Are construction records, maps and operating history available to appropriate operating personnel?* (MO.GO.OMHISTORY.O) 192.605(b)(3)

**12. Normal Maintenance and Operations - Manual Location** *Are appropriate parts of the manual kept at locations where operations and maintenance activities are conducted?* (MO.GO.OMLOCATION.O) 192.605(a)

**13. Safety Related Conditions** *Does the process include instructions enabling personnel who perform operation and maintenance activities to recognize conditions that may potentially be safety-related conditions?* (MO.GO.SRC.P) 192.605(a) (192.605(d);191.23(a))

**14. Customer Notification** *Is a customer notification process in place that satisfies the requirements of 192.16?* (MO.GO.CUSTNOTIFY.P) 192.13(c) (192.16(a);192.16(b);192.16(c);192.16(d))

**15. Customer Notification** *Do records indicate the customer notification process satisfies the requirements of 192.16?* (MO.GO.CUSTNOTIFY.R) 192.16(d) (192.16(a);192.16(b);192.16(c))

**16. Gas Odor Response** *Does the process require prompt response to the report of a gas odor inside or near a building?* (MO.GO.ODDOR.P) 192.605(a) (192.605(b)(11))

**17. Upgrading** *Is the pressure upgrading process consistent with the requirements of 192.553?* (MO.GO.UPRATE.P) 192.13(c) (192.553(a);192.553(b);192.553(c);192.553(d))

**18. Uprating** *Do records indicate the pressure uprating process was implemented per the requirements of 192.553?* (MO.GO.UPRATE.R) 192.553(b) (192.553(a);192.553(c);192.553(d))

**19. Outer Continental Shelf** *Do records indicate specific point(s) at which operating responsibility transfers to a producing operator, as applicable?* (MO.GO.OCS.R) 192.10

**20. Outer Continental Shelf** *Are specific point(s) at which operating responsibility transfers to a producing operator identified, as applicable?* (MO.GO.OCS.O) 192.10

## Maintenance and Operations - Gas Pipeline Overpressure Protection

**1. Pressure Limiting and Regulating Stations Capacity of Relief Devices** *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?* (MO.GMOPP.PRESSREGCAP.P) 192.605(b)(1) (192.743(a);192.743(b);192.743(c))

**2. Pressure Limiting and Regulating Stations Capacity of Relief Devices** *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?* (MO.GMOPP.PRESSREGCAP.R) 192.709(c) (192.743(a);192.743(b);192.743(c))

**3. Transmission Lines Record Keeping** *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?* (MO.GM.RECORDS.R) 192.605(b)(1) (192.243(f);192.709(a);192.709(b);192.709(c))

**4. Pressure Limiting and Regulating Stations Inspection and Testing** *Does the process include procedures for inspecting and testing each pressure limiting station, relief device, and pressure regulating station and their equipment?* (MO.GMOPP.PRESSREGTEST.P) 192.605(b)(1) (192.739(a);192.739(b))

**5. Pressure Limiting and Regulating Stations Inspection and Testing** *Do records indicate inspection and testing of pressure limiting, relief devices, and pressure regulating stations?* (MO.GMOPP.PRESSREGTEST.R) 192.709(c) (192.739(a);192.739(b))

**6. Pressure Limiting and Regulating Stations Inspection and Testing** *Are field or bench tests or inspections of regulating stations, pressure limiting stations or relief devices adequate?* (MO.GMOPP.PRESSREGTEST.O) 192.739(a) (192.739(b);192.743)

**7. Transmission Lines Record Keeping** *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?* (MO.GM.RECORDS.P) 192.605(b)(1) (192.709(a);192.709(b);192.709(c))

## Maintenance and Operations - ROW Markers, Patrols, Leakage Survey and Monitoring

**1. Patrolling Requirements** *Does the process adequately cover the requirements for patrolling the ROW and conditions reported?* (MO.RW.PATROL.P) 192.705(a) (192.705(b);192.705(c))

**2. Patrolling Requirements** *Do records indicate that ROW surface conditions have been patrolled as required?* (MO.RW.PATROL.R) 192.709(c) (192.705(a);192.705(b);192.705(c))

**3. Placement of ROW Markers** *Are line markers placed and maintained as required?* (MO.RW.ROWMARKER.O) 192.707(a) (192.707(b);192.707(c);192.707(d))

**4. ROW Conditions** *Are the ROW conditions acceptable for the type of patrolling used?* (MO.RW.ROWCONDITION.O) 192.705(a) (192.705(c))

**5. ROW Markers Requirements** *Does the process adequately cover the requirements for placement of ROW markers?* (MO.RW.ROWMARKER.P) 192.707(a) (192.707(b);192.707(c);192.707(d))

**6. Leakage Surveys** *Does the process require leakage surveys to be conducted?* (MO.RW.LEAKAGE.P) 192.706  
(192.706(a);192.706(b);192.935(d))

**7. Leakage Surveys** *Do records indicate leakage surveys conducted as required?* (MO.RW.LEAKAGE.R) 192.709(c)  
(192.706;192.706(a);192.706(b);192.935(d))

**8. Leakage Surveys** *Are leakage surveys being implemented as required?* (MO.RW.LEAKAGE.O) 192.706  
(192.706(a);192.706(b))

**9. Leak Survey (<30% SMYS Gas Transmission)** *For pipelines operating below 30% SMYS in a Class 3 or 4 locations, but not in an HCA, is there a process for performing leak surveys?* (MO.RW.LEAKAGE30SMYS.P) 192.935(d)(3)  
(192.935(b)(1)(i);192.935(b)(1)(iii))

**10. Leak Survey (<30% SMYS Gas Transmission)** *For pipelines operating below 30% SMYS in a Class 3 or 4 locations, but not in an HCA, do records indicate performance of leak surveys?* (MO.RW.LEAKAGE30SMYS.R) 192.935(d)  
(192.935(b)(1)(i);192.935(b)(1)(iii))

**11. Requirement to Identify GOM Pipeline Hazards** *Does the process require identification of pipelines in the Gulf of Mexico at risk of being exposed underwater or hazards to navigation?* (MO.RW.GOMHAZARD.P) 192.612(a)  
(192.612(c)(2);192.612(c)(3))

**12. Requirement to Identify GOM Pipeline Hazards** *Do records indicate steps taken to identify and inspect pipelines in the Gulf of Mexico at risk of being exposed underwater pipelines or hazards to navigation?* (MO.RW.GOMHAZARD.R) 192.709(c) (192.612(a);192.612(b))

**13. Requirement to Identify GOM Pipeline Hazards** *Are pipelines in the Gulf of Mexico at risk of being exposed underwater pipelines or hazards to navigation marked as required?* (MO.RW.GOMHAZARD.O) 192.612(c)(2)

## Public Awareness and Damage Prevention - Damage Prevention

**1. Damage Prevention Program** *Is a damage prevention program approved and in place?* (PD.DP.PDPROGRAM.P) 192.614(a)

**2. Participation in Qualified One Call Systems** *Does the process require participation in qualified one-call systems?* (PD.DP.ONECALL.P) 192.614(b)

**3. Construction Marking** *Does the process require marking proposed excavation sites to CGA Best Practices or use more stringent and accurate requirements?* (PD.DP.EXCAVATEMARK.P) 192.614(c)(5)

**4. Documented Damage Prevention Program - TPD** *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?* (PD.DP.TPD.P) 192.614(c)(1)

**5. Documented Damage Prevention Program - TPD/One Call** *Does the process specify how reports of TPD are checked against One-Call tickets?* (PD.DP.TPDONECALL.P) 192.614(c)(3)

**6. Participation in Qualified One Call Systems** *Observe operator process a "One Call" ticket.* (PD.DP.ONECALL.O) 192.614(c)(3)

**7. Damage Prevention Program** *Does the damage prevention program meet minimum requirements specified in 192.614(c)?* (PD.DP.PDPROGRAM.R) 192.614(c)

**8. DP Information Gathering Requirements** *Does the process require critical damage prevention information be gathered and recorded during pipeline patrols, leak surveys, and integrity assessments?* (PD.DP.DPINFOGATHER.P) 192.917(b) (192.935(b)(1)(ii))

**9. DP Information Gathering Requirements** *Do records demonstrate that critical damage prevention information is being gathered and recorded during pipeline patrols, leakage surveys, and integrity assessments?* (PD.DP.DPINFOGATHER.R) 192.947(b) (192.917(b);192.935(b)(1)(ii))

## Public Awareness and Damage Prevention - Public Awareness

**1. Asset Identification** *Does the program clearly identify the specific pipeline systems and facilities to be included in the program, along with the unique attributes and characteristics of each?* (PD.PA.ASSETS.P) 192.616(b) (API RP 1162 Section 2.7 Step 4)

**2. Audience Identification** *Does the program establish methods to 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?* (PD.PA.AUDIENCEID.P) 192.616(d) (192.616(e);192.616(f);API RP 1162 Section 2.2;API RP 1162 Section 3)

**3. Management Support of Public Awareness Program** *Does the operator's program documentation demonstrate management support?* (PD.PA.MGMTSUPPORT.P) 192.616(a) (API RP 1162 Section 2.5;API RP 1162 Section 7.1)

**4. Public Education Program** *Has the continuing public education (awareness) program been established as required?* (PD.PA.PROGRAM.P) 192.616(a) (192.616(h))

**5. Audience Identification** *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?* (PD.PA.AUDIENCEID.R) 192.616(d) (192.616(e);192.616(f);API RP 1162 Section 2.2;API RP 1162 Section 3)

**6. Messages, Delivery Methods, and Frequencies** *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?* (PD.PA.MESSAGES.P) 192.616(c) (API RP 1162 Section 3;API RP 1162 Section 4;API RP 1162 Section 5)

**7. Consideration of Supplemental Enhancements** *Were relevant factors considered to determine the need for supplemental public awareness program enhancements for each stakeholder audience, as described in API RP 1162?* (PD.PA.SUPPLEMENTAL.P) 192.616(c) (API RP 1162 Section 6.2)

**8. Educational Provisions** *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?* (PD.PA.EDUCATE.R) 192.616(d) (192.616(f))

**9. Messages on Pipeline Facility Locations** *Were messages developed and delivered to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations?* (PD.PA.LOCATIONMESSAGE.R) 192.616(e) (192.616(f))

**10. Baseline Message Delivery Frequency** *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?* (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)

**11. Liaison with Public Officials** *Do records indicate that liaison has been established and maintained with appropriate fire, police, public officials, and utility owners?* (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)

**12. Other Languages** *Does the program require that materials and messages be provided in other languages commonly understood by a significant number and concentration of non-English speaking populations in the operator's areas?* (PD.PA.LANGUAGE.P) 192.616(g) (API RP 1162 Section 2.3.1)

**13. Other Languages** *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?* (PD.PA.LANGUAGE.R) 192.616(g) (API RP 1162 Section 2.3.1)

**14. Evaluation Plan** *Does the program include a process that specifies how program implementation and effectiveness will be periodically evaluated?* (PD.PA.EVALPLAN.P) 192.616(i) (192.616(c); API RP 1162 Section 8; API RP 1162 Appendix E)

- 15. Evaluate Program Implementation** *Has an audit or review of the operator's program implementation been performed annually since the program was developed?* (PD.PA.EVALIMPL.R) 192.616(c) (192.616(i);API RP 1162 Section 8.3)
- 16. Acceptable Methods for Program Implementation Audits** *Was one or more of the three acceptable methods (i.e., internal assessment, 3rd-party contractor review, or regulatory inspections) used to complete the annual audit or review of program implementation?* (PD.PA.AUDITMETHODS.R) 192.616(c) (192.616(i);API RP 1162 Section 8.3)
- 17. Program Changes and Improvements** *Were changes made to improve the program and/or the implementation process based on the results and findings of the annual audit(s)?* (PD.PA.PROGRAMIMPROVE.R) 192.616(c) (API RP 1162 Section 8.3)
- 18. Evaluating Program Effectiveness** *Have effectiveness evaluation(s) of the program been performed for all stakeholder groups in all notification areas along all systems covered by the program?* (PD.PA.EVALEFFECTIVENESS.R) 192.616(c) (API RP 1162 Section 8.4)
- 19. Measure Program Outreach** *In evaluating effectiveness, was actual program outreach for each stakeholder audience tracked?* (PD.PA.MEASUREOUTREACH.R) 192.616(c) (API RP 1162 Section 8.4.1)
- 20. Measure Understandability of Message Content** *In evaluating program effectiveness, was the percentage of each stakeholder audience that understood and retained the key information from the messages determined?* (PD.PA.MEASUREUNDERSTANDABILITY.R) 192.616(c) (API RP 1162 Section 8.4.2)
- 21. Measure Desired Stakeholder Behavior** *In evaluating program effectiveness, was evaluation made of whether appropriate preventive, response, and mitigative behaviors were understood and likely to be exhibited?* (PD.PA.MEASUREBEHAVIOR.R) 192.616(c) (API RP 1162 Section 8.4.3)
- 22. Measure Bottom-Line Results** *Were bottom-line results of the program measured by tracking third-party incidents and consequences including: (1) near misses, (2) excavation damages resulting in pipeline failures, (3) excavation damages that do not result in pipeline failures?* (PD.PA.MEASUREBOTTOM.R) 192.616(c) (API RP 1162 Section 8.4.4)

**23. Program Changes** *Were needed changes and/or modifications to the program identified and documented based on the results and findings of the program effectiveness evaluations?* (PD.PA.CHANGES.R) 192.616(c) (API RP 1162 Section 2.7 (Step 12);API RP 1162 Section 8.5)

## Public Awareness and Damage Prevention - ROW Markers, Patrols, Monitoring

**1. Patrolling Requirements** *Does the process adequately cover the requirements for patrolling the ROW and conditions reported?* (MO.RW.PATROL.P) 192.705(a) (192.705(b);192.705(c))

**2. Patrolling Requirements** *Do records indicate that ROW surface conditions have been patrolled as required?* (MO.RW.PATROL.R) 192.709(c) (192.705(a);192.705(b);192.705(c))

**3. Placement of ROW Markers** *Are line markers placed and maintained as required?* (MO.RW.ROWMARKER.O) 192.707(a) (192.707(b);192.707(c);192.707(d))

**4. ROW Conditions** *Are the ROW conditions acceptable for the type of patrolling used?* (MO.RW.ROWCONDITION.O) 192.705(a) (192.705(c))

**5. ROW Markers Requirements** *Does the process adequately cover the requirements for placement of ROW markers?* (MO.RW.ROWMARKER.P) 192.707(a) (192.707(b);192.707(c);192.707(d))

**6. Requirement to Identify GOM Pipeline Hazards** *Does the process require identification of pipelines in the Gulf of Mexico at risk of being exposed underwater or hazards to navigation?* (MO.RW.GOMHAZARD.P) 192.612(a) (192.612(c)(2);192.612(c)(3))

**7. Requirement to Identify GOM Pipeline Hazards** *Do records indicate steps taken to identify and inspect pipelines in the Gulf of Mexico at risk of being exposed underwater pipelines or hazards to navigation?* (MO.RW.GOMHAZARD.R) 192.709(c) (192.612(a);192.612(b))

**8. Requirement to Identify GOM Pipeline Hazards** *Are pipelines in the Gulf of Mexico at risk of being exposed underwater pipelines or hazards to navigation marked as required? (MO.RW.GOMHAZARD.O) 192.612(c)(2)*

## Public Awareness and Damage Prevention - Special Permits

**1. AMAOP Pipelines and Special Permit Pipelines** *If the operator operates a pipeline under a special permit have the processes been modified to incorporate the requirements of the permit for required repairs? (PD.SP.REPAIR.P) 190.341(d)(2)*

**2. Special Permits** *If the operator operates a pipeline under a special permit, do the processes specify implementation of applicable CGA Best Practices? (PD.SP.BESTPRACTICE.P) 190.341(d)(2)*

**3. 80% Pipelines and Special Permit Pipelines** *If the operator operates a pipeline under a special permit, do records indicate that required repairs were performed? (PD.SP.REPAIR.R) 190.341(d)(2)*

**4. 80% Pipelines and Special Permit Pipelines** *If the operator operates a pipeline under a special permit verify that the requirements have been implemented. (PD.SP.REQUIREMENT.O) 190.341(d)(2)*

**5. Special Permits - AMAOP** *If the operator operates a pipeline under an AMAOP special permit have the processes been modified to incorporate the requirements of the permit? (PD.SP.AMAOP.P) 190.341(d)(2)*

**6. Special Permits - AMAOP** *If the operator operates a pipeline under an AMAOP special permit, do records indicate that required repairs were performed? (PD.SP.AMAOP.R) 190.341(d)(2) (192.605(b))*

## Reporting - Notices and Reporting

**1. OQ Program Modifications** *Does the OQ Program require the Administrator or state agency to be notified if the operator significantly modifies its program?* (RPT.NR.NOTIFYOQ.P) 192.805(i) (192.18)

**2. OQ Program Modifications** *Do records indicate the Administrator or state agency was notified when the OQ Program was significantly modified?* (RPT.NR.NOTIFYOQ.R) 192.805(i) (192.18)

**3. Alternative MAOP - Elevated Temperature** *Do records indicate coating information was provided to PHMSA and state authorities at least 60 days prior to operating above 120 deg. F?* (RPT.NR.AMAOPTEMP.R) 192.112(h)(2)

**4. Alternative MAOP - Coating Monitoring** *Do records indicate coating monitoring program provided to PHMSA and state authorities?* (RPT.NR.AMAOPCOAT.R) 192.112(h)(3)

**5. Alternative MAOP - Test failure** *Do records indicate the results of root cause analyses of pipe test failures reported to PHMSA and state authorities, at least 60 days prior to operating at the alternative MAOP?* (RPT.NR.AMAOPTESTFAIL.R) 192.328(d)(1)

**6. Alternative MAOP - Operating Failure** *Prior to using the alternative maximum allowable pressure option on a pipeline that have been previously operated at lower pressures, do processes require reporting the results of root cause analyses of operational failures to PHMSA and state authorities, at least 60 days prior to operation at the alternative MAOP?* (RPT.NR.AMAOPPFFAIL.P) 192.605(b)(1) (192.620(b)(6))

**7. Alternative MAOP - Operating Failure** *Do records indicate results of root cause analyses of operational failures reported to PHMSA and state authorities for those pipelines using the alternative maximum allowable pressure option on a pipeline that have been previously operated at lower pressures, at least 60 days prior to operation at the alternative MAOP?* (RPT.NR.AMAOPPFFAIL.R) 192.603(b) (192.620(b)(6))

**8. Alternative MAOP - Election** *Does the process require notification to PHMSA and the state pipeline safety authorities of the election to use the alternative MAOP?* (RPT.NR.AMAOPNOTIFY.P) 192.620(c)(1)

**9. Alternative MAOP - Election** Do records indicate notification to PHMSA and the state pipeline safety authorities of the election to use the alternative MAOP? (RPT.NR.AMAOPNOTIFY.R) 192.603(b) (192.620(c)(1))

**10. Alternative MAOP - Certification (192.620)** Does the process require certified copies required by 192.620(c)(2) be sent to applicable PHMSA region offices and state pipeline safety authorities? (RPT.NR.AMAOPCERT.P) 192.620(c)(3)

**11. Alternative MAOP - Certification** Do records indicate certified copies required by 192.620(c)(2) were sent to applicable PHMSA region offices and state pipeline safety authorities? (RPT.NR.AMAOPCERT.R) 192.603(b) (192.620(c)(3))

**12. Alternative MAOP - Cathodic Protection (Amdt)** Does the process require notification to PHMSA and the state pipeline safety authorities of certain annual test station readings that do not meet cathodic protection criteria if remedial action cannot be completed within 6 months? (RPT.NR.AMAOPCP.P) 192.620(d)(8)

**13. Alternative MAOP - Cathodic Protection** Do records indicate notification to PHMSA and the state pipeline safety authorities of certain annual test station readings that do not meet cathodic protection criteria if remedial action could not be completed within 6 months? (RPT.NR.AMAOPCP.R) 192.603(b) (192.620(d)(8))

**14. IM Management of Change** Is the process for notifying PHMSA and/or state/local authorities of significant changes to the Integrity Management Program adequate? (RPT.NR.NOTIFYIMCHANGE.P) 192.909(b) (192.921(a)(7);192.937(c)(7);192.18)

**15. IM Management of Change** Do records demonstrate that PHMSA and/or state/local authorities were notified of substantial or significant changes to the Integrity Management Program? (RPT.NR.NOTIFYIMCHANGE.R) 192.947(i) (192.909(b);192.921(a)(7);192.937(c)(7))

**16. IM Pressure Reductions** Do processes require notifying PHMSA and/or state/local authorities: 1) if the schedule for evaluation and remediation required under paragraph 192.933(c) cannot be met and safety cannot be provided through temporary reduction in operating pressure or other action, and 2) when a pressure reduction exceeds 365 days? (RPT.NR.NOTIFYIMPRESS.P) 192.933(a)(1)

**17. IM Pressure Reductions** *Do records demonstrate that PHMSA and/or state/local authorities were notified with the required information when one of the following occurred: 1) schedule for evaluation and remediation could not be met and safety could not be provided through a temporary reduction in operating pressure, or 2) when a pressure reduction exceeded 365 days?* (RPT.NR.NOTIFYIMPRESS.R) 192.947(i) (192.933(a)(1))

**18. IM Performance Measures (Deviate)** *Is there a process for reporting integrity management program performance measures if deviating from certain IMP requirements (exceptional performance)?* (RPT.NR.IMDEVIATERPT.P) 192.913(b)(1)(vii)

**19. IM Performance Measures (Deviate)** *Do records demonstrate adequate reporting of integrity management program performance measures if deviating from certain IMP requirements (exceptional performance)?* (RPT.NR.IMDEVIATERPT.R) 192.947(i) (192.913(b)(1)(vii))

**20. IM Performance Reporting** *Is there a process for annual reporting of integrity management performance data?* (RPT.NR.IMPERFRPT.P) 192.947(i) (192.945(a);191.17;ASME B31.8S-2004 Appendix A Section 9.8)

**21. IM Performance Reporting** *Do annual reports demonstrate that integrity management performance data were reported?* (RPT.NR.IMPERFRPT.R) 192.947(i) (192.945(a);191.17;ASME B31.8S-2004 Appendix A Section 9.8)

## Reporting - Regulatory Reporting (Traditional)

**1. Annual Report Records** *Have complete and accurate Annual Reports utilizing the most recent form F 7 100.2-1 been submitted?* (RPT.RR.ANNUALREPORT.R) 191.17(a)

**2. Immediate Reporting: Incidents** *Is there a process to immediately report incidents to the National Response Center?* (RPT.RR.IMMEDREPORT.P) 191.5(b) (191.7)

**3. Immediate Reporting: Incidents** *Do records indicate immediate notifications of incidents were made in accordance with 191.5?* (RPT.RR.IMMEDREPORT.R) 191.5(a) (191.7(a))

**4. Telephonic Reporting: Exposed Pipe GOM and inlets** *Does the process include telephonic notification to the National Response Center of exposed or navigation hazard pipe in the Gulf of Mexico and its inlets?* (RPT.RR.TELREPORTGOM.P) 192.605(b)(1) (192.612(c)(1))

**5. Telephonic Reporting: Exposed Pipe GOM and inlets** *Do records indicate telephonic notification of exposed pipes in the Gulf of Mexico and its inlets was made?* (RPT.RR.TELREPORTGOM.R) 192.612(c)(1)

**6. Incident Reports** *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?* (RPT.RR.INCIDENTREPORT.P) 191.15(a) (192.624(a)(1);192.624(a)(2))

**7. Supplemental Incident Reports** *Does the process require preparation and filing of supplemental incident reports?* (RPT.RR.INCIDENTREPORTSUPP.P) 191.15(d) (192.624(a))

**8. Incident Reports** *Do records indicate reportable incidents were identified and reports were submitted to DOT on the most recent Form within the required timeframe?* (RPT.RR.INCIDENTREPORT.R) 191.15(a) (192.624(a)(1);192.624(a)(2))

**9. Supplemental Incident Reports** *Do records indicate accurate supplemental incident reports were filed and within the required timeframe using the most recent Form?* (RPT.RR.INCIDENTREPORTSUPP.R) 191.15(d)

**10. Safety Related Condition Reports** *Do processes require reporting of safety-related conditions?* (RPT.RR.SRCR.P) 192.605(a) (191.23(a);191.23(b);191.25(a);191.25(b);191.25(c))

**11. Safety Related Condition Reports** *Do records indicate safety-related condition reports were filed as required?* (RPT.RR.SRCR.R) 191.23(a) (191.23(b);191.25(a);191.25(b);191.25(c))

**12. Offshore Hazard to Navigation: Permit Delay** *Do the process require PHMSA notification when federal or state permits cannot be obtained in time?* (RPT.RR.NOTIFYPERMITGOM.P) 192.605(b)(1) (192.612(c)(3)(ii))

**13. Offshore Hazard to Navigation: Permit Delay** *Do records indicate required notification was provided when permitting delayed reburial of pipe in Gulf of Mexico waters found to be a hazard to navigation?* (RPT.RR.NOTIFYPERMITGOM.R) 192.612(c)(3)(ii)

**14. Abandoned Underwater Facility Reports** *Does the process require reports to be filed for each abandoned offshore pipeline facility or each abandoned onshore pipeline facility that crosses over, under or through a commercially navigable waterway?* (RPT.RR.ABANDONWATERFACILITY.P) 192.605(b)(1) (192.727(g))

**15. Abandoned Underwater Facility Reports** *Do records indicate reports were filed for abandoned offshore pipeline facilities or abandoned onshore pipeline facilities that crosses over, under or through a commercially navigable waterway?* (RPT.RR.ABANDONWATERFACILITY.R) 192.727(g)

**16. NPMS: Annual Updates** *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?* (RPT.RR.NPMSANNUAL.R) 191.29(a) (191.29(b))

**17. National Registry of Pipeline and LNG Operators (OPID)** *Does the process require the obtaining, and appropriate control, of Operator Identification Numbers (OPIDs), including changes in entity, acquisition/divestiture, and construction/update/uprate?* (RPT.RR.OPID.P) 191.22(a) (191.22(c);191.22(d))

**18. National Registry of Pipeline and LNG Operators (OPID)** *Do records indicate appropriate obtaining, and control of, Operator Identification Numbers (OPIDs), including changes in entity, acquisition/divestiture, and construction/update/uprate?* (RPT.RR.OPID.R) 191.22(a) (191.22(c);191.22(d))

## Reporting - Special Permits

**1. Special Permits or Waiver** *Has the operator complied with all reporting requirements contained within its special permit or waiver?* (RPT.SP.SPWAIVER.R) 190.341(d)(2) (Special Permit)

## Screening - General Screening Questions

**1. Records Location** *Where are the records kept, or electronically available, for this inspection? (see Considerations below)* (SRN.GENERAL.RECORDLOCATE.S)

**2. Asset Acquisition and Divestiture** *Describe the significant asset acquisitions, mergers, and divestitures in the last five years.* (SRN.GENERAL.ASSETCHANGE.S)

**3. Enforcement** *Discussion of Enforcement* (SRN.GENERAL.ENFORCEMENT.S)

**4. New Facilities or Components** *Have any new facilities or components been constructed or added within the last five years that did not meet the notification requirements of the National Registry of Pipeline and LNG Operators (see PDM)?* (SRN.GENERAL.NEWFACILITIES.S)

**5. Pipeline System Changes** *Have there been any significant changes in the pipeline system configuration in the last 5 years? (i.e., idled pipe, mileage changes, new connections, new segments, system capacity changes, etc.). Verify system configuration and assets.* (SRN.GENERAL.SYSTEMCHGS.S)

**6. Incident Reports** *Discussion of incidents reports.* (SRN.GENERAL.INCIDENTREPORT.S)

**7. Safety Related Condition Reports (SRCRs)** *Have there been any Safety Related Conditions (SRCs) or Maximum Allowable Operating Pressure Exceedances for this pipeline in the last 5 years? (Provide details)* (SRN.GENERAL.SRCR.S)

**8. Advisory Bulletins (ADBs)** *Has the guidance of ADBs (Advisory Bulletins) been implemented in relevant program areas?* (SRN.GENERAL.ADB.S)

**9. Grandfathered Facilities** *Are there any facilities or components grandfathered under various code requirements? (Provide details)* (SRN.GENERAL.GRANDFATHER.S)

**10. Exclusion Groups** *Have all asset "Exclusions" been considered and applied? (See listing below in Considerations.)*  
(SRN.GENERAL.EXCLUSIONS.S)

**11. Tribal Lands** *Does the pipeline cross tribal lands?* (SRN.GENERAL.TRIBALLANDS.S)

## Screening - AR - Repair Criteria (O&M)

**1. Repair Criteria (O&M)** *Are repair criteria in non-covered segments different than in covered segments? (provide details)* (SRN.AR-RCOM.REPAIROM.S)

## Screening - AR - Confirmatory Direct Assessment

**1. Confirmatory Direct Assessment** *Has the operator utilized CDA on this pipeline system? (If Yes, provide details.)*  
(SRN.AR-CDA.CDA.S)

## Screening - AR - External Corrosion Direct Assessment (ECDA)

**1. External Corrosion Direct Assessment (ECDA)** *Has the operator utilized ECDA on this pipeline system?*  
(SRN.AR-EC.ECDA.S)

## Screening - AR - Internal Corrosion Direct Assessment (ICDA)

**1. Internal Corrosion Direct Assessment (ICDA)** *Has the operator utilized ICDA on this pipeline system?*  
(SRN.AR-IC.ICDA.S)

## Screening - AR - In-Line Inspection (Smart Pigs)

**1. Integrity Assessments** *Describe integrity issues or new threats discovered by the most recent integrity assessments.*  
(SRN.AR-IL.INTEGASSMNTS.S)

**2. Integrity Assessment Method - ILI** *What process was used to select the ILI assessment tool(s)?* (SRN.AR-IL.ILIUSE.S)

## Screening - AR - Low Stress Reassessment

**1. Low Stress Reassessment** *If Low Stress Reassessment is used, was a baseline assessment conducted, and, if so, what were the results?* (SRN.AR-LSR.LSR.S)

## Screening - AR - Other Technology

**1. Other Technology** *What, if any, Other Technology(ies) have been used to assess the integrity of the pipeline in the last 7 years? (provide details)* (SRN.AR-OT.OT.S)

## Screening - AR - Integrity Assessment Via Pressure Test

**1. Integrity Assessment Via Pressure Test** *Where pressure testing was utilized to assess the integrity of the pipeline, what was the extent and nature of any pipeline failures? (provide details) (SRN.AR-PTI.PRESSTEST.S)*

## Screening - AR - Repair Criteria (HCA)

**1. Repair Criteria (HCA)** *Has the nature and/or severity of required repairs found during the most recent assessment changed significantly as compared to the previous assessments? (Provide details) (SRN.AR-RC.REPCRIT.S)*

**2. Pipe Movement or Replacement Projects** *Have any pipeline movement or replacement projects been performed in the last 5 years? If so, identify the projects and locations. (SRN.DC-CO.MOVEREPLACE.S)*

## Screening - AR - Repair Methods and Practices

**1. Repair Methods and Practices** *Have repairs to the pipeline been made in the past 5 years due to Integrity Management assessments? (SRN.AR-RMP.METHODS.S)*

## Screening - AR - Stress Corrosion Cracking

**1. Indications of Stress Corrosion Cracking** *What indications or instances of Stress Corrosion Cracking (SCC) have been identified and remediated in the last 5 years, and what is the resulting SCC program? (provide details) (SRN.AR-SCC.SCC.S)*

## Screening - CR - CRM General

**1. Control Center Location** *What is the assignment of the pipeline and its facilities to one or more control rooms (including their locations)?* (SRN.CR-CRMGEN.CONTROLCNTR.S)

## Screening - CR - CRM Roles and Responsibilities

**1. Controllers** *Have there been any revisions or changes to the CRM roles and responsibilities or staffing levels as a result of any AOCs or emergencies? (Provide details)* (SRN.CR-CRMRR.CONTROLLERS.S)

## Screening - CR - Supervisory Control and Data Acquisition

**1. SCADA System** *How many SCADA Systems and/or other remote/field automation units utilized for the pipeline? (Provide details)* (SRN.CR-SCADA.SCADASYSTEMS.S)

## Screening - CR - Fatigue Management

**1. Fatigue Management** *What type of shift schedule does the operator utilize and has it changed in the past five years?* (SRN.CR-CRMFM.FATIGMGMT.S)

## Screening - CR - Alarm Management

**1. Control Room Alarms and Logging Process** *What changes have been made to the alarm management process of receiving and logging/recording system events, alarms, and commands in the last 5 years? (Provide details)* (SRN.CR-CRMAM.ALARMS.S)

## Screening - CR - Change Management

**1. Change Management** *How are changes to pipeline equipment or configuration coordinated between the control room and associated field personnel? (SRN.CR-CRMCMGT.CHANGE.S)*

## Screening - CR - Operating Experience

**1. Operating Experience** *Have there been any modifications to the CRM procedures based on operating experience reportable event reviews? (SRN.CR-CRMEXP.OPEREXP.S)*

## Screening - CR - CRM Training

**1. Controller Training** *What controller training program updates or improvements were made in the last 5 years? (SRN.CR-CRMTRAIN.CNTRLRTRAIN.S)*

## Screening - CR - Compliance Validation and Deviations

**1. Compliance Validation and Deviations** *What deviations from the control room procedures have occurred in the last 5 years? (provide details) (SRN.CR-CRMCOMP.COMPLVALID.S)*

## Screening - CR - Leak Detection

**1. Leak Detection System - Method** *If a computational pipeline monitoring (CPM) leak detection system (LDS) is not used, then how are leaks detected? (Describe the LDS system in place) (SRN.CR-LD.LEAKDETMETHOD.S)*

## Screening - DC - Compressor Station Construction

**1. Compressor Station Construction** *What compressor station construction activities are scheduled to occur within the next 6 months? (provide details) (SRN.DC-COCMP.CMPSTA.S)*

## Screening - DC - Design of Compressor Stations

**1. Design of Compressor Stations** *What is the process for ensuring that compressor station protective & safety devices and emergency shutdowns are designed in accordance with the code and applicable industry standards, and installed where needed? (SRN.DC-DPCCMP.CMPSTA.S)*

## Screening - DC - Design of Pipe - Overpressure Protection

**1. Design of Pipe - Overpressure Protection** *What is the process for establishing and documenting each pressure limiting device and overpressure safety device on the pipeline system? (SRN.DC-DPCOPP.PRESSPROT.S)*

## Screening - DC - Pressure Testing - Low Pressure

**1. Pressure Testing - Low Pressure Pipelines** *What pressure tests related to Low Pressure pipelines (below 30% SMYS) construction projects are planned to occur within the next 6 months on the pipeline or pipeline components? (provide details) (SRN.DC-PTLOWPRESS.PRESSTEST.S)*

## Screening - DC - Construction Weld Inspection

**1. Construction Weld Inspection** *For recent construction projects, what was the approximate weld rejection rate? (Provide details)* (SRN.DC-WELDINSP.WELDINSP.S)

## Screening - DC - Construction Welding Procedures

**1. Construction Welding Procedures** *For any recent or upcoming construction activities, what was/is the process for approving welding procedures?* (SRN.DC-WELDPROCEDURE.WELDPROCEDURE.S)

## Screening - DC - Construction

**1. Construction Activities - Installation** *What pipeline and/or facility construction activities are underway or planned to occur within the next 6 months? (provide details)* (SRN.DC-CO.CONSTRNEW.S)

**2. Pipe Movement or Replacement Projects** *Have any pipeline movement or replacement projects been performed in the last 5 years? If so, identify the projects and locations.* (SRN.DC-CO.MOVEREPLACE.S)

## Screening - DC - Design of Pipe

**1. Design of Pipe** *Have there been any pipeline design process changes in the last 5 years to ensure that all appropriate design requirements from Part 192 and Industry Standards for line pipe are followed? (provide details)* (SRN.DC-DP.PIPEDESIGN.S)

## Screening - DC - Design of Pipe Components

**1. Design of Pipe Components** *What is the process for ensuring that pipe components and devices (i.e., fittings, flanges, valves, instrumentation, ancillary fittings/piping, etc.) are designed in accordance with the code and applicable industry standards, and are installed where needed? (SRN.DC-DPC.COMPDESIGN.S)*

## Screening - DC - Gathering (D&C)

**1. Gathering Design and Construction** *What processes have been established for the Design & Construction of gathering pipelines? (SRN.DC-GA.GATHERING.S)*

## Screening - DC - Materials

**1. Materials - Qualification, Marking, and Transport** *For pipeline projects in the last 5 years, what were the steel pipe (and plastic pipe) qualification, marking, and transportation requirements? (SRN.DC-MA.MATERIALSCONSTR.S)*

## Screening - DC - Maintenance and Operations

**1. Maintenance & Operations Construction Related** *What parts of the O&M procedures are utilized when conducting the following activities: internal corrosion examination, project related shutdown/start-up, accidental ignition controls, hot tapping, and conducting activities in a safe manner? (SRN.DC-MO.MAINTOM.S)*

## Screening - DC - Pressure Testing

**1. Pressure Testing - O&M Construction Projects** *What post-project pressure tests for O&M construction projects are planned to occur within the next 6 months on the pipeline or pipeline components? (provide details) (SRN.DC-PT.PRESSURETEST.S)*

**2. Pressure Testing - Failures** *Have there been any O&M construction (pre-commissioning, including replacement projects) hydrostatic pressure test or other pressure test failures within the last 5 years? (provide details) (SRN.DC-PT.CONSTHYDROFAIL.S)*

## Screening - DC - Training and Qualification

**1. OQ Covered Task List** *What are the identified OQ program covered tasks for O&M construction projects? (SRN.DC-TQ.CONSTOQTASK.S)*

## Screening - EP - Emergency Response

**1. Emergency Response Activation** *What emergency events (or drills if not actual events) have occurred in the past 5 years that required activation of an emergency response in accordance with procedures? (please explain) (SRN.EP-ERG.EPACTIVATE.S)*

**2. Post-Incident Revisions** *What revisions to the emergency response procedures have been made in the last 5 years due to deficiencies identified during a drill, simulated emergency, or an actual incident / emergency event? (Provide details) (SRN.EP-ERG.POSTINCIDENTMOC.S)*

## Screening - FS - Compressor Stations

**1. Compressor Stations - Site Layout** *Have there been any changes to the compressor station site(s) that could impact the following: site layout, personnel movement/egress, NFPA70 requirements, separators, ventilation, bottle/pipe type holders, and flammable materials storage? (Provide details) (SRN.FS-CS.CMPSTA.S)*

**2. Compressor Stations - Operations** *Have there been any changes to the compressor station sites that could impact normal/emergency operations procedures and equipment configuration? (Provide details) (SRN.FS-CS.CMPEQUIPOPS.S)*

**3. Compressor Stations - Supply Gas** *Do any compressor stations serve as the sole gas supply for a gas distribution system, and if so, have any of these compressor stations been modified or undergone other construction within the last 5 years? (Provide details) (SRN.FS-CS.CMPSTATIONDIST.S)*

## Screening - FS - Compressor Station System Protection

**1. Compressor Station System Protection** *What processes are in place for ensuring that compressor station protective and safety devices and emergency shutdowns (ESD) are installed where needed and inspected? (SRN.FS-CSSYSROT.CMPSTA.S)*

**2. Compressor Stations in HCAs** *Are any compressor stations located in a High Consequence Area (HCA)? (provide details) (SRN.FS-CSSYSROT.HCAFACILITY.S)*

## Screening - FS - Facilities General

**1. Facilities Operations Changes** *What changes, including abandonment and deactivation, have been made to the non-compressor station facilities operations and equipment configuration in the last 5 years? (Provide details) (SRN.FS-FG.FACILCHGS.S)*

## Screening - FS - Gas Storage

**1. Gas Storage Fields** *What, if any, gas storage fields are operated associated with the pipeline? (Provide details) (SRN.FS-GS.STORAGEFIELD.S)*

## Screening - FS - Valves (Facilities & Storage)

**1. Facility Valves** *What is the process for ensuring that facility valves are installed where needed and maintained for the safe operation of the pipeline different from mainline valves? (SRN.FS-VA.VALVES.S)*

## Screening - IM - Baseline Assessments

**1. IM Baseline Assessments - Prioritized Schedule** *Has there been any newly identified HCAs or newly installed pipe in HCAs identified in the last 5 years? (SRN.IM-BA.BAPSCHEDULE.S)*

## Screening - IM - Continual Evaluation and Assessment

**1. IM Periodic Evaluation Actions** *Describe the actions implemented in the last 5 years to address the threats identified and the risk represented by these threats as a result of a periodic evaluation for a specific covered segment. (SRN.IM-CA.PERIODICEVALMOC.S)*

**2. IM Integrity Assessments Delayed** *Has the performance of any integrity assessments been delayed such that a schedule or required timeframe was exceeded? (Provide details) (SRN.IM-CA.ASSESSDELAY.S)*

## Screening - IM - High Consequence Areas

**1. IMP - Process and Procedure Changes** Describe the most significant changes to the Integrity Management processes and procedures since the last IMP-focused PHMSA inspection. (SRN.IM-HC.IMPLANMOD.S)

**2. IM HCAs - Newly Identified HCAs** Describe the method or process that identifies any new segments that are in an HCA and incorporates them into the Integrity Management Program. (SRN.IM-HC.HCANEW.S)

**3. Facilities in HCA** Are any non-compressor station facilities located in a High Consequence Area (HCA)? (Provide details) (SRN.IM-HC.FACILHCA.S)

**4. Idle Pipelines - Return to Service** Have any pipelines or pipeline segments been returned to service in the last 5 years that were previously considered to be "idle"? (Provide details) (SRN.IM-HC.IDLERETURN.S)

**5. Idle Pipelines - Current** Are any pipelines or pipeline segments currently identified as "idle," and, if so, how are those segments managed in relevant Programs and/or Procedures? (Provide details) (SRN.IM-HC.IDLEPIPE.S)

## Screening - IM - Preventive & Mitigative (P&M) Measures

**1. IM Preventive & Mitigative Measures - General Requirements** Describe the preventive measures & mitigative measures that have been implemented in the last 5 years or are planned to be implemented in the future to protect HCAs. (SRN.IM-PM.PMIMPGENERAL.S)

## Screening - IM - Quality Assurance

**1. IM Performance Measures** What are the methods employed to measure the Integrity Management Program's effectiveness? (SRN.IM-QA.PERFMEASURE.S)

**2. IM Management of Change (MOC)** Describe the most significant changes that have been implemented outside of the IMP processes as a result of IMP decisions and moved through the Management of Change (MOC) process in the last 5 years. (SRN.IM-QA.MOC.S)

## Screening - IM - Risk Analysis

**1. Risk Analysis - Comprehensiveness of Approach** Describe the most significant modifications that have been made to the IM processes in the last 5 years to identify and evaluate all potential threats to each covered pipeline segment. (SRN.IM-RA.RAMOD.S)

**2. Risk Analysis - ROW Information Management** How is the information gathered (related to potential excavation damage) during pipeline patrols, monitoring, and leakage surveys analyzed and used by the integrity management information / risk analysis? (SRN.IM-RA.INFOMGMT.S)

## Screening - MO - Alternative MAOP

**1. Alternative MAOP** Are any segments of the pipeline operated under the Alternate MAOP limitations (ref. 192.620)? (SRN.MO-AMAOP.AMAOP.S)

## Screening - MO - Conversion to Service

**1. Conversion to Part 192 Service** What pipelines or pipeline segments have undergone a conversion to Part 192 service in the last 5 years? (provide details) (SRN.MO-GC.192CONV.S)

## Screening - MO - Gas Pipeline Abnormal Operations

**1. Abnormal Operations Events** *What abnormal operations events has the pipeline experienced in the last 5 years and how were lessons learned incorporated? (Provide details)* (SRN.MO-GOABNORMAL.ABPROCESS.S)

## Screening - MO - Gas Pipeline Class Location

**1. Class Location Changes** *Has there been a class location change occur in the past 3 years that required a study and the subsequent confirmation or revision of the pipeline segment's MAOP? (SRN.MO-GOCLASS.CLASSLOCATEMAOPREV.S)*

## Screening - MO - Gas Pipeline MAOP

**1. MAOP Changes** *If there have been any changes in the pipeline MAOP or in startup/shutdown procedures to ensure that operations are within MAOP, in the last 5 years, what was the nature of the changes? (SRN.MO-GOMAOP.MAOPCHGS.S)*

**2. MAOP Validation** *Are records available that fully validate the current pipeline MAOP, and if not, what is the process for addressing this issue? (SRN.MO-GOMAOP.MAOPVALID.S)*

## Screening - MO - Gas Pipeline Maintenance

**1. Pipe Movement or Replacement Projects** *Have any pipeline movement or replacement projects been performed in the last 5 years? If so, identify the projects and locations. (SRN.DC-CO.MOVEREPLACE.S)*

**2. Gas Pipeline Maintenance** *What significant changes have been made to the pipeline maintenance program in the last 5 years? (SRN.MO-GM.GASMTCE.S)*

## Screening - MO - Gas Pipeline Odorization

**1. Odorization** *Are any portions of the pipeline system(s) non-odorized? (Provide details)* (SRN.MO-GOODOR.ODORIZE.S)

## Screening - MO - Gas Pipeline Operations

**1. Tracking of "Near Misses"** *Are "near misses" tracked, and if so, how are they reviewed and potentially incorporated into revised procedures or revised programs?* (SRN.MO-GO.NEARMISS.S)

**2. Idle Pipelines - Current** *Are any pipelines or pipeline segments currently identified as "idle," and, if so, how are those segments managed in relevant Programs and/or Procedures? (Provide details)* (SRN.IM-HC.IDLEPIPE.S)

**3. Idle Pipelines - Return to Service** *Have any pipelines or pipeline segments been returned to service in the last 5 years that were previously considered to be "idle"? (Provide details)* (SRN.IM-HC.IDLERETURN.S)

**4. O&M Procedure Manual Modifications** *What modifications have been made to the pipeline operations program/manual/procedures in the last 5 years?* (SRN.MO-GO.OMPLANMOD.S)

**5. Gas Pipeline Operational Restrictions** *Are there any operational restrictions (for example, reduced operational pressure) that have been put on the pipeline system or any system components? (Provide details)* (SRN.MO-GO.OPERATERELECTRICT.S)

## Screening - MO - Gas Pipeline Overpressure Protection

**1. Gas Pipeline Overpressure Protection** *Have any pressure limiting device or overpressure safety device settings been changed for the pipeline system in the last 5 years? (Provide details)* (SRN.MO-GMOPP.PRESSPROTECT.S)

**2. Segment-Specific MAOP Protection** *Are there any segment-specific MAOP protection controls in place? (provide details)* (SRN.MO-GMOPP.MAOPSEGPROTECT.S)

**3. MAOP Exceedances** *Have there been any MAOP exceedances in the last 5 years? (please describe)* (SRN.MO-GMOPP.MAOPEXCEED.S)

## Screening - MO - ROW Markers, Patrols, Leakage Survey and Monitoring

**1. ROW Markers, Patrols, Leakage Surveys, and Monitoring** *What, if any, issues have occurred in the last 5 years regarding pipeline ROW monitoring, marking, leakage surveys, and patrolling?* (SRN.MO-RW.ROWISSUES.S)

## Screening - PD - Damage Prevention

**1. Damage Prevention Program** *How is the effectiveness of the Damage Prevention Program measured, and what issues have been discovered in the last 5 years?* (SRN.PD-DP.DPPPROGRAM.S)

**2. Tracking of "Near Misses"** *Are "near misses" tracked, and if so, how are they reviewed and potentially incorporated into revised procedures or revised programs?* (SRN.MO-GO.NEARMISS.S)

**3. Damage Prevention - One-Call Process** *How is the effectiveness of the One-Call system response measured, and what issues have been identified in the last 5 years?* (SRN.PD-DP.ONECALL.S)

**4. Idle Pipelines - Current** *Are any pipelines or pipeline segments currently identified as "idle," and, if so, how are those segments managed in relevant Programs and/or Procedures? (Provide details) (SRN.IM-HC.IDLEPIPE.S)*

**5. Idle Pipelines - Return to Service** *Have any pipelines or pipeline segments been returned to service in the last 5 years that were previously considered to be "idle"? (Provide details) (SRN.IM-HC.IDLEReturn.S)*

## Screening - PD - Public Awareness

**1. Idle Pipelines - Current** *Are any pipelines or pipeline segments currently identified as "idle," and, if so, how are those segments managed in relevant Programs and/or Procedures? (Provide details) (SRN.IM-HC.IDLEPIPE.S)*

**2. Idle Pipelines - Return to Service** *Have any pipelines or pipeline segments been returned to service in the last 5 years that were previously considered to be "idle"? (Provide details) (SRN.IM-HC.IDLEReturn.S)*

**3. Public Awareness Program** *How is the effectiveness of the Public Awareness Program measured, and what issues have been identified in the last 5 years? (SRN.PD-PA.PAPROGRAM.S)*

**4. ROW Markers, Patrols, Leakage Surveys, and Monitoring** *What, if any, issues have occurred in the last 5 years regarding pipeline ROW monitoring, marking, leakage surveys, and patrolling? (SRN.MO-RW.ROWISSUES.S)*

## Screening - TD - External Corrosion - Exposed Pipe

**1. External Corrosion - Exposed Pipe** *Have any exposed portions of buried pipe been discovered in the last 5 years? (Provide details) (SRN.TD-CPEXPOSED.EXPOSEDPIPE.S)*

## Screening - TD - External Corrosion - CP Monitoring

**1. Cathodic Protection Monitoring** *What issues have been discovered during cathodic protection monitoring in the last 5 years? (provide details)* (SRN.TD-CPMONITOR.CATHODICPROT.S)

**2. Cathodic Protection Monitoring Impractical** *Are there any separately protected short sections of mains or transmission line, not in excess of 100 feet for which monitoring CP once each calendar year is impractical?* (SRN.TD-CPMONITOR.CPSEPARATE.S)

## Screening - TD - Internal Corrosion - Corrosive Gas

**1. Internal Corrosion - Corrosive Gas** *Where corrosive gas is transported, what changes have been made to minimize internal corrosion in the last 5 years?* (SRN.TD-ICCG.CORRGAS.S)

## Screening - TD - Alternative MAOP

**1. Alternative MAOP** *Are any segments of the pipeline operated under the Alternate MAOP limitations (ref. 192.620)?* (SRN.MO-AMAOP.AMAOP.S)

## Screening - TD - Atmospheric Corrosion

**1. External Corrosion - Atmospheric Corrosion** *What, if any, specific corrosion control projects in response to discovering atmospheric external corrosion have been conducted in the last 5 years? (Provide details)* (SRN.TD-ATM.ATMCORRODE.S)

## Screening - TD - External Corrosion - Coatings

**1. External Corrosion - Coatings** *What, if any, coating issues have been discovered in the last 5 years? (Provide details)* (SRN.TD-COAT.COATINGS.S)

## Screening - TD - External Corrosion - Cathodic Protection

**1. External Corrosion - CP Ineffective** *What, if any, portion of the pipeline is not effectively protected from external corrosion by a cathodic protection system? (describe details)* (SRN.TD-CP.CP.S)

**2. External Corrosion - Cathodic Protection** *What, if any, specific projects in response to discovering external corrosion related to cathodic protection have been conducted in the last 5 years? (Provide details)* (SRN.TD-CP.EXTCORROSION.S)

## Screening - TD - Internal Corrosion - Preventive Measures

**1. Internal Corrosion - Preventive Measures** *What, if any, internal corrosion issues have been discovered in the last 5 years? (provide details)* (SRN.TD-ICP.INTCORROSION.S)

## Screening - TD - Stress Corrosion Cracking

**1. Stress Corrosion Cracking** *What indications or instances of Stress Corrosion Cracking (SCC) has the pipeline experienced in the last 5 years, and what is the resulting SCC program? (Provide details)* (SRN.TD-SCC.SCC.S)

## Screening - TQ - Qualification of Personnel - Specific Requirements (IM)

**1. Qualification of Personnel - Specific Requirements (IM)** *Have there been any changes in the last 5 years to the process to ensure that individuals (operator and contractor) are qualified to perform integrity management program activities and integrity management quality control?* (SRN.TQ-QUIM.IMREQMNTS.S)

## Screening - TQ - Qualification of Personnel - Specific Requirements (O and M Construction)

**1. Qualification of Personnel - Specific Requirements (O & M Construction)** *What significant changes have been made in the last 5 years to the processes regarding the qualifications of individuals involved in welding and joining pipe?* (SRN.TQ-QUOMCONST.OMCONSTREQMNTS.S)

## Screening - TQ - Operator Qualification

**1. OQ Plan Modifications** *What, if any, changes or improvements have been made to the OQ Plan in the last 5 years?* (SRN.TQ-OQ.OQPLANMOD.S)

**2. OQ Personnel Count** *Have there been changes in the number of personnel (both company and contractor) covered by the OQ Plan in the last 5 years?* (SRN.TQ-OQ.OQPERSONNEL.S)

**3. OQ Removal from Covered Task** *Have any OQ-qualified individuals (operator and contractor) been removed from performing a covered task, and what were the circumstances for the removal(s)?* (SRN.TQ-OQ.OQREMOVAL.S)

## Screening - TQ - Qualification of Personnel - Specific Requirements

**1. Qualification of Personnel - Specific Requirements** *Have there been any changes in the last 5 years to the process to ensure that individuals (operator and contractor) are qualified to perform the following activities? - corrosion control processes, - hot tapping, and - individuals who oversee and perform marking, trenching, and backfilling operations. (SRN.TQ-QU.REQMNTS.S)*

## Screening - TQ - Training of Personnel

**1. Training of Personnel** *Have there been any changes in the last 5 years to the process to ensure that emergency response personnel (operator and contractor) are qualified to perform their activities? (SRN.TQ-TR.TRAINING.S)*

## Time-Dependent Threats - Alternative MAOP

**1. Alternative MAOP - Internal Corrosion** *Is there a process for controlling internal corrosion on pipelines that may operate under the Alternative Maximum Operating Pressure rule? (TD.AMAOP.AMAOP.P) 192.605(b)(2) (192.620(d)(5))*

**2. Alternative MAOP - Internal Corrosion** *Do records document that the operator is following a process for controlling internal corrosion on pipelines they may operate under the Alternative Maximum Operating Pressure rule? (TD.AMAOP.AMAOP.R) 192.709(c) (192.620(d)(5))*

**3. Alternative MAOP - Internal Corrosion** *Is the process being followed for controlling internal corrosion on pipelines operated under the Alternative Maximum Operating Pressure rule? (TD.AMAOP.AMAOP.O) 192.620(d)(5)*

**4. Alternative MAOP - Interference Currents** *Does the process include (prior to operating an existing pipeline segment at an alternate maximum allowable operating pressure, or within six months after placing a new pipeline segment in service at an alternate maximum allowable operating pressure) required instructions for addressing any interference currents on the pipeline segment? (TD.AMAOP.AMAOPINTFRCURRENT.P) 192.605(b)(2) (192.620(d)(6))*

**5. Alternative MAOP - Interference Currents** *Do records document that actions taken (prior to operating an existing pipeline segment at an alternate maximum allowable operating pressure, or within six months after placing a new pipeline segment in service at an alternate maximum allowable operating pressure) have been adequate in addressing any interference currents on the pipeline segment?* (TD.AMAOP.AMAOPINTFRCURRENT.R) 192.709(c) (192.620(d)(6))

**6. Alternative MAOP - Indirect Method** *Does the process require that within six months after placing the cathodic protection of a new pipeline segment in operation, or within six months after an existing pipeline segment under Part 192 has been certified under the Alternative Maximum Operating Pressure rule, that adequacy be assessed of the indirect method such as close-interval survey, and the integrity of the coating using direct current voltage gradient (DCVG) or alternating current voltage gradient (ACVG)?* (TD.AMAOP.AMAOPINDIRECT.P) 192.605(b)(2) (192.620(d)(7))

**7. Alternative MAOP - Indirect Method** *Do records document that within six months after placing the cathodic protection of a new pipeline segment in operation, or within six months after an existing pipeline segment under Part 192 has been certified under the Alternative Maximum Operating Pressure rule, that adequacy was assessed of the indirect method such as close-interval survey, and the integrity of the coating using direct current voltage gradient (DCVG) or alternating current voltage gradient (ACVG)?* (TD.AMAOP.AMAOPINDIRECT.R) 192.709(c) (192.620(d)(7))

**8. Alternative MAOP - Test Reading** *Does the process for a pipeline segment operating at an alternate maximum allowable operating pressure require: \*Completion of remedial action within six months of a failed reading at a test station during annual monitoring; \*Or notification of each responsible pipeline safety party demonstrating that the integrity of the pipeline is not compromised; \*And after completion of the remedial action to address a failed reading, confirm restoration of adequate corrosion control by a close interval survey on either side of the affected test station to the next test station?* (TD.AMAOP.AMAOPTESTREAD.P) 192.605(b)(2) (192.620(d)(8))

**9. Alternative MAOP - Test Reading** *Do records document that for a pipeline segment operating at an alternate maximum allowable operating pressure the following: \*Completion of remedial action within six months of a failed reading at a test station during annual monitoring; \*Or notification of each responsible pipeline safety party demonstrating that the integrity of the pipeline is not compromised and; \*And after completion of the remedial action to address a failed reading, confirm restoration of adequate corrosion control by a close interval survey on either side of the affected test station to the next test station?* (TD.AMAOP.AMAOPTESTREAD.R) 192.709(c) (192.620(d)(8))

## Time-Dependent Threats - Atmospheric Corrosion

**1. Atmospheric Corrosion** *Does the process give adequate guidance identifying atmospheric corrosion and for protecting above ground pipe from atmospheric corrosion?* (TD.ATM.ATMCORRODE.P) 192.605(b)(2) (192.479(a);192.479(b);192.479(c))

**2. Atmospheric Corrosion Monitoring** *Is pipe that is exposed to atmospheric corrosion protected?*  
(TD.ATM.ATMCORRODEINSP.O) 192.481(b) (192.481(c);192.479(a);192.479(b);192.479(c))

**3. Atmospheric Corrosion** *Do records document the protection of above ground pipe from atmospheric corrosion?*  
(TD.ATM.ATMCORRODE.R) 192.491(c) (192.479(a);192.479(b);192.479(c))

**4. Atmospheric Corrosion Monitoring** *Does the process give adequate instruction for the inspection of aboveground pipeline segments for atmospheric corrosion?* (TD.ATM.ATMCORRODEINSP.P) 192.605(b)(2) (192.481(a);192.481(b);192.481(c))

**5. Atmospheric Corrosion Monitoring** *Do records document inspection of aboveground pipe for atmospheric corrosion?* (TD.ATM.ATMCORRODEINSP.R) 192.491(c) (192.481(a);192.481(b);192.481(c))

## Time-Dependent Threats - External Corrosion - CP Monitoring

**1. Cathodic Protection Criteria** *Does the process require CP monitoring criteria to be used that is acceptable?*  
(TD.CPMONITOR.MONITORCRITERIA.P) 192.605(b)(2) (192.463(a);192.463(c))

**2. Rectifier or other Impressed Current Sources** *Do records document details of electrical checks of sources of rectifiers or other impressed current sources?* (TD.CPMONITOR.CURRENTTEST.R) 192.491(c) (192.465(b))

**3. Cathodic Protection Monitoring** *Are methods used for taking CP monitoring readings that allow for the application of appropriate CP monitoring criteria?* (TD.CPMONITOR.MONITORCRITERIA.O) 192.465(a) (192.463(a))

**4. Cathodic Protection Criteria** *Do records document that the CP monitoring criteria used was acceptable?*  
(TD.CPMONITOR.MONITORCRITERIA.R) 192.491(c) (192.463(a))

**5. Cathodic Protection Monitoring** *Does the process adequately describe how to monitor CP that has been applied to pipelines?* (TD.CPMONITOR.TEST.P) 192.605(b)(2) (192.465(a))

**6. Cathodic Protection Monitoring** *Do records adequately document cathodic protection monitoring tests have occurred as required?* (TD.CPMONITOR.TEST.R) 192.491(c) (192.465(a))

**7. Rectifiers or other Impressed Current Sources** *Does the process give sufficient details for making electrical checks of rectifiers or impressed current sources?* (TD.CPMONITOR.CURRENTTEST.P) 192.605(b)(2) (192.465(b))

**8. Rectifier or other Impressed Current Sources** *Are impressed current sources properly maintained and are they functioning properly?* (TD.CPMONITOR.CURRENTTEST.O) 192.465(b)

**9. Bonds, Diodes, and Reverse Current Switches** *Does the process give sufficient details for making electrical checks of interference bonds, diodes, and reverse current switches?* (TD.CPMONITOR.REVCURRENTTEST.P) 192.605(b)(2) (192.465(c))

**10. Bonds, Diodes and Reverse Current Switches** *Do records document details of electrical checks interference bonds, diodes, and reverse current switches?* (TD.CPMONITOR.REVCURRENTTEST.R) 192.491(c) (192.465(c))

**11. Bonds, Diodes and Reverse Current Switches** *Are interference bonds, diodes, and reverse current switches properly maintained and are they functioning properly?* (TD.CPMONITOR.REVCURRENTTEST.O) 192.465(c)

**12. Correction of Corrosion Control Deficiencies** *Does the process require that the operator promptly correct any identified deficiencies in corrosion control?* (TD.CPMONITOR.DEFICIENCY.P) 192.605(b)(2) (192.465(d))

**13. Correction of Corrosion Control Deficiencies** *Do records adequately document actions taken to correct any identified deficiencies in corrosion control?* (TD.CPMONITOR.DEFICIENCY.R) 192.491(c) (192.465(d))

**14. Test Stations** *Does the process contain provisions to assure that each pipeline has sufficient test stations or other contact points to determine the adequacy of cathodic protection?* (TD.CPMONITOR.TESTSTATION.P) 192.469

**15. Test Stations** *Do records identify the location of test stations and show a sufficient number of test stations?* (TD.CPMONITOR.TESTSTATION.R) 192.469

**16. Test Stations** *Do cathodically protected pipelines have a sufficient number of test stations?* (TD.CPMONITOR.TESTSTATION.O) 192.469

**17. Test Leads** *Does the process provide adequate instructions for the installation of test leads?* (TD.CPMONITOR.TESTLEAD.P) 192.605(b)(2) (192.471(a);192.471(b);192.471(c))

**18. Test Leads** *Do records document that pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart I?* (TD.CPMONITOR.TESTLEAD.R) 192.491(c) (192.471(a);192.471(b);192.471(c))

**19. Test Leads** *Do pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart I?* (TD.CPMONITOR.TESTLEAD.O) 192.471(a) (192.471(b);192.471(c))

**20. Interference Currents** *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?* (TD.CPMONITOR.INTFRCURRENT.P) 192.605(b)(2) (192.473(a))

**21. Interference Currents** *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?* (TD.CPMONITOR.INTFRCURRENT.R) 192.491(c) (192.473(a))

**22. Interference Currents** *Are areas of potential stray current identified, and if found, the detrimental effects of stray currents minimized?* (TD.CPMONITOR.INTFRCURRENT.O) 192.473(a)

**23. Corrosion Control Records** *Does the process include records requirements for the corrosion control activities listed in 192.491? (TD.CP.RECORDS.P) 192.605(b)(2) (192.491(a);192.491(b);192.491(c))*

**24. Corrosion Control Records** *Do records indicate the location of all items listed in 192.491(a)? (TD.CP.RECORDS.R) 192.491(a)*

## Time-Dependent Threats - External Corrosion - Cathodic Protection

**1. Cathodic Protection post July 1971** *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? (TD.CP.POST1971.P) 192.605(b)(2) (192.455(a);192.457(a);192.452(a);192.452(b))*

**2. Cathodic Protection post July 1971** *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? (TD.CP.POST1971.R) 192.491(c) (192.455(a);192.457(a);192.452(a);192.452(b))*

**3. Cathodic Protection pre August 1971** *Does the process require that pipelines installed before August 1, 1971 (except for cast and ductile iron lines) which are 1) bare or ineffectively coated transmission lines or 2) bare or coated pipes in compressor, regulator or meter stations must be cathodically protected in areas where active corrosion is found? (TD.CP.PRE1971.P) 192.605(b)(2) (192.457(b))*

**4. Cathodic Protection pre August 1971** *Do records document that pipelines installed before August 1, 1971 (except for cast and ductile iron lines) which are 1) bare or ineffectively coated transmission lines or 2) bare or coated pipes in compressor, regulator or meter stations have been cathodically protected in areas where active corrosion was found? (TD.CP.PRE1971.R) 192.491(c) (192.457(b))*

**5. Cathodic Protection of Underground Piping** *Are bare or coated pipes in compressor, regulator or meter stations installed before August 1, 1971 (except for cast and ductile iron lines) cathodically protected in areas where active corrosion was found in accordance with Subpart I or Part 192? (TD.CP.PRE1971.O) 192.457(b)*

**6. Use of Aluminum** *Does the process give adequate guidance for the installation of aluminum in a submerged or buried pipeline?* (TD.CP.ALUMINUM.P) 192.605(b)(2) (192.455(e))

**7. Use of Aluminum** *Do records support the installation of aluminum when it was installed in a submerged or buried pipeline?* (TD.CP.ALUMINUM.R) 192.491(c) (192.455(e))

**8. Cathodic Protection of Amphoteric Metals** *Does the process describe criteria to be used for cathodic protection of amphoteric metals (aluminum) that are included in a steel pipeline?* (TD.CP.AMPHOTERIC.P) 192.605(b)(2) (192.463(b);192.463(c))

**9. Cathodic Protection of Amphoteric Metals** *Do records document adequate cathodic protection of amphoteric metals (aluminum) that are included in a steel pipeline?* (TD.CP.AMPHOTERIC.R) 192.491(c) (192.463(b))

**10. Unprotected Buried Pipelines (typically bare pipelines)** *Does the process give sufficient direction for the monitoring of external corrosion on buried pipelines that are not protected by cathodic protection?* (TD.CP.UNPROTECT.P) 192.605(b)(2) (192.465(e))

**11. Unprotected Buried Pipelines (typically bare pipelines)** *Do records adequately document the re-evaluation of non-cathodically protected buried pipelines for areas of active corrosion?* (TD.CP.UNPROTECT.R) 192.491(c) (192.465(e))

**12. Isolation from Other Metallic Structures** *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?* (TD.CP.ELECISOLATE.P) 192.605(b)(2) (192.467(a);192.467(b);192.467(c);192.467(d);192.467(e))

**13. Isolation from Other Metallic Structures** *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?* (TD.CP.ELECISOLATE.R) 192.491(c) (192.467(a);192.467(b);192.467(c);192.467(d);192.467(e))

**14. Isolation from Other Metallic Structures** *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?* (TD.CP.ELECISOLATE.O) 192.467(a) (192.467(b);192.467(c);192.467(d);192.467(e))

**15. Protection from Fault Currents** *Does the process give sufficient guidance for determining when protection against damage from fault currents or lightning is needed and how that protection must be installed?* (TD.CP.FAULTCURRENT.P) 192.605(b)(2) (192.467(f))

**16. Protection from Fault Currents** *Do records adequately document the installation and inspection of fault current and lightning protection?* (TD.CP.FAULTCURRENT.R) 192.491(c) (192.467(f))

**17. Protection from Fault Currents** *Are fault current and lightning protection for the pipeline installed and inspected?* (TD.CP.FAULTCURRENT.O) 192.467(f)

**18. Graphitization of Cast Iron and Ductile Iron** *Does the process give adequate guidance for remediation of graphitization of cast iron or ductile iron pipe?* (TD.CP.GRAPHITIZE.P) 192.605(b)(2) (192.489(a);192.489(b))

**19. Graphitization of Cast Iron and Ductile Iron** *Do records document remediation of graphitization of cast iron or ductile iron pipe?* (TD.CP.GRAPHITIZE.R) 192.491(c) (192.489(a);192.489(b))

**20. Corrosion Control Records** *Does the process include records requirements for the corrosion control activities listed in 192.491?* (TD.CP.RECORDS.P) 192.605(b)(2) (192.491(a);192.491(b);192.491(c))

**21. Corrosion Control Records** *Do records indicate the location of all items listed in 192.491(a)?* (TD.CP.RECORDS.R) 192.491(a)

## Time-Dependent Threats - External Corrosion - Coatings

**1. New Buried Pipe Coating** *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?* (TD.COAT.NEWPIPE.P) 192.605(b)(2) (192.455(a)(1);192.461(a);192.461(b);192.483(a))

**2. New Buried Pipe Coating** *Do records document that each buried or submerged pipeline installed after July 31, 1971 has been externally coated with a suitable coating material?* (TD.COAT.NEWPIPE.R) 192.491(c) (192.455(a)(1);192.461(a);192.461(b);192.483(a))

**3. New Buried Pipe w/o Coating** *If a buried or submerged pipeline installed after July 31, 1971 was not installed with an external protective coating do records provide adequate documentation why such a coating was not necessary to protect the pipe from external corrosion?* (TD.COAT.NEWPIPENOCOAT.R) 192.491(c) (192.455(b))

**4. New Buried Pipe Coating Application** *Does the process give adequate guidance for the application and inspection of protective coatings on pipe?* (TD.COAT.NEWPIPEINSTALL.P) 192.605(b)(2) (192.461(c);192.461(d);192.461(e);192.483(a))

**5. New Buried Pipe Coating Application** *Do records document that acceptable external protective coating materials have been used and the application and inspection was done in accordance with the written procedures?* (TD.COAT.NEWPIPEINSTALL.R) 192.491(c) (192.461(c);192.461(d);192.461(e);192.483(a))

**6. Pipe Coating Installation** *Is protective coating adequately applied?* (TD.COAT.COATAPPLY.O) 192.461(a) (192.461(c);192.461(d);192.461(e);192.319(b);192.483(a))

## Time-Dependent Threats - External Corrosion - Exposed Pipe

**1. Examination of Exposed Portions of Buried Pipe** *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?* (TD.CPEXPOSED.EXPOSEINSPECT.P) 192.605(b)(2) (192.459)

**2. Examination of Exposed Portions of Buried Pipe** *Do records adequately document that exposed buried piping was examined for corrosion and deteriorated coating?* (TD.CPEXPOSED.EXPOSEINSPECT.R) 192.491(c) (192.459)

**3. Examination of Exposed Portions of Buried Pipe** *Is exposed buried piping examined for corrosion and deteriorated coating?* (TD.CPEXPOSED.EXPOSEINSPECT.O) 192.459

**4. Evaluation of Externally Corroded Pipe** *Does the process provide sufficient direction for personnel to evaluate the remaining strength of externally corroded pipe?* (TD.CPEXPOSED.EXTCORRODEEVAL.P) 192.605(b)(2) (192.485(a);192.485(b);192.485(c))

**5. Evaluation of Externally Corroded Pipe** *Do records adequately document the evaluation of externally corroded pipe?* (TD.CPEXPOSED.EXTCORRODEEVAL.R) 192.491(c) (192.485(a);192.485(b);192.485(c))

**6. Repair of Externally Corroded Pipe** *Does the process give sufficient guidance for personnel to repair or replace pipe that is externally corroded to an extent that there is not sufficient remaining strength in the pipe wall?* (TD.CPEXPOSED.EXTCORRODREPAIR.P) 192.605(b)(2) (192.485(a);192.485(b);192.485(c))

**7. Repair of Externally Corroded Pipe** *Do records document the repair or replacement of pipe that has been externally corroded to an extent that there is not sufficient remaining pipe wall strength?* (TD.CPEXPOSED.EXTCORRODREPAIR.R) 192.491(c) (192.485(a);192.485(b);192.485(c))

**8. Corrosion Control Records** *Does the process include records requirements for the corrosion control activities listed in 192.491?* (TD.CP.RECORDS.P) 192.605(b)(2) (192.491(a);192.491(b);192.491(c))

**9. Corrosion Control Records** *Do records indicate the location of all items listed in 192.491(a)?* (TD.CP.RECORDS.R) 192.491(a)

## Time-Dependent Threats - Internal Corrosion - Preventive Measures

**1. Internal Corrosion in Removed Pipe** *Does the process direct personnel to examine removed pipe for evidence of internal corrosion?* (TD.ICP.EXAMINE.P) 192.605(b)(2) (192.475(a);192.475(b))

**2. Internal Corrosion in Removed Pipe** *Do records document examination of removed pipe for evidence of internal corrosion?* (TD.ICP.EXAMINE.R) 192.491(c) (192.475(a);192.475(b))

**3. Internal Corrosion in Removed Pipe** *Is removed pipe examined for evidence of internal corrosion?* (TD.ICP.EXAMINE.O) 192.475(a) (192.475(b))

**4. Evaluation of Internally Corroded Pipe** *Does the process give sufficient guidance for personnel to evaluate the remaining strength of pipe that has been internally corroded?* (TD.ICP.EVALUATE.P) 192.605(b)(2) (192.485(c))

**5. Evaluation of Internally Corroded Pipe** *Do records document adequate evaluation of internally corroded pipe?* (TD.ICP.EVALUATE.R) 192.491(c) (192.485(c))

**6. Repair of Internally Corroded Pipe** *Does the process give sufficient guidance for personnel to repair or replace pipe that has internally corroded to an extent that there is no longer sufficient remaining strength in the pipe wall?* (TD.ICP.REPAIR.P) 192.491(c) (192.485(a);192.485(b))

**7. Repair of Internally Corroded Pipe** *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?* (TD.ICP.REPAIR.R) 192.485(a) (192.485(b))

**8. Bottle Type and Pipe Type Holders** *Does the process preclude storing gas containing more than 0.25 grain of hydrogen sulfide per 100 standard cubic feet (5.8 milligrams/m<sup>3</sup>) at standard conditions (4 parts per million) in pipe-type or bottle-type holders?* (TD.ICP.PIPEBOTTLE.P) 192.605(b)(2) (192.475(c))

## Time-Dependent Threats - Internal Corrosion - Corrosive Gas

**1. Internal Corrosion - Corrosive Gas** *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?* (TD.ICCG.CORRGAS.P) 192.605(b)(2) (192.475(a))

**2. Internal Corrosion - Corrosive Gas** *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?* (TD.ICCG.CORRGAS.R) 192.491(c) (192.475(a))

**3. Internal Corrosion Corrosive Gas Actions** *Does the process give adequate direction for actions to be taken if corrosive gas is being transported by pipeline?* (TD.ICCG.CORRGASACTION.P) 192.605(b)(2) (192.477)

**4. Internal Corrosion Corrosive Gas Actions** *Do records document the actions taken when corrosive gas is being transported by pipeline?* (TD.ICCG.CORRGASACTION.R) 192.491(c) (192.477)

**5. Internal Corrosion Corrosive Gas Actions** *Are adequate actions taken when corrosive gas is being transported by pipeline?* (TD.ICCG.CORRGASACTION.O) 192.477

## Time-Dependent Threats - Special Permits

**1. Special Permit** *Has a process been developed as necessary for complying with the special permit conditions?* (TD.SP.CONDITIONS.P) 190.341(d)(2)

**2. Special Permit** *Do records demonstrate compliance with all special permit or waiver requirements?* (TD.SP.CONDITIONS.R) 190.341(d)(2)

**3. Special Permit** *Are special permit requirements being complied with?* (TD.SP.CONDITIONS.O) 190.341(d)(2)

## Time-Dependent Threats - Stress Corrosion Cracking

**1. SCC on HCA Sections** *Does the integrity management program have a process to identify and evaluate stress corrosion cracking threats to each covered pipeline segment?* (TD.SCC.SCCIM.P) 192.911(c) (192.917(a)(1))

**2. SCC on HCA Sections** *Do integrity management program records document results of studies to identify and evaluate stress corrosion cracking threats to each covered pipeline segment?* (TD.SCC.SCCIM.R) 192.947(d) (192.917(a)(1))

**3. Remediation of SCC** *Do records document that the operator has properly remediated any occurrences of SCC?* (TD.SCC.SCCREPAIR.R) 192.709(a) (192.703(b))

## Training and Qualification - OQ Protocol 9

**1. Program Inspection Deficiencies** *Have potential issues identified by the OQ plan inspection process been corrected at the operational level?* (TQ.PROT9.CORRECTION.O) 192.801(a) (192.809(a))

**2. Covered Task Performance** *Verify the qualified individuals performed the observed covered tasks in accordance with the operator's processes or operator approved contractor processes.* (TQ.PROT9.TASKPERFORMANCE.O) 192.801(a) (192.809(a))

**3. Qualification Status** *Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.* (TQ.PROT9.QUALIFICATIONSTATUS.O) 192.801(a) (192.809(a))

**4. Abnormal Operating Condition Recognition and Reaction** *Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed.* (TQ.PROT9.AOCRECOG.O) 192.801(a) (192.809(a))

**5. Verification of Qualification** *Observe in the field (job site, local office, etc.) that the foreman/supervisor/manager has verified the qualification of the individual performing the task, that the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance.* (TQ.PROT9.VERIFYQUAL.O) 192.801(a) (192.809(a))

## Training and Qualification - Operator Qualification

**1. Operator Qualification Plan and Covered Tasks** *Is there an OQ plan that includes covered tasks, and the basis used for identifying covered tasks?* (TQ.OQ.OQPLAN.P) 192.805(a) (192.801(b))

**2. Reevaluation Intervals for Covered Tasks** *Does the OQ plan establish and justify requirements for reevaluation intervals for each covered task?* (TQ.OQ.REEVALINTERVAL.P) 192.805(g)

**3. Covered Task Performed by Non-Qualified Individual** *Does the OQ plan contain provisions for non-qualified individuals to perform covered tasks while being directed and observed by a qualified individual, and are appropriate restrictions and limitations placed on such activities?* (TQ.OQ.NONQUALIFIED.P) 192.805(c)

**4. Evaluation Methods** *Are evaluation methods established and documented appropriate to each covered task?* (TQ.OQ.EVALMETHOD.P) 192.805(b) (192.803;192.809(d);192.809(e))

**5. Contractor Qualification** *Are adequate records containing the required elements maintained for contractor personnel?* (TQ.OQ.OQCONTRACTOR.R) 192.807(a) (192.807(b))

**6. Qualification Records for Personnel Performing Covered Tasks** *Do records document the evaluation and qualifications of individuals performing covered tasks, and can the qualification of individuals performing covered tasks be verified?* (TQ.OQ.RECORDS.R) 192.807

**7. Training Requirements (Initial, Retraining, and Reevaluation)** *Does the OQ program provide for initial qualification, retraining and reevaluation of individuals performing covered tasks?* (TQ.OQ.TRAINING.P) 192.805(h)

**8. Training Requirements (Initial, Retraining, and Reevaluation)** *Does the operator have records for initial qualification, re-training and re-evaluation of individuals performing covered tasks? (TQ.OQ.TRAINING.R) 192.807(a) (192.807(b))*

**9. Contractors Adhering to OQ Plan** *Does the OQ plan have a process to communicate the OQ plan requirements to contractors and ensure that contractors are following it? (TQ.OQ.OQPLANCONTRACTOR.P) 192.805(b) (192.805(f);192.805(c))*

**10. Management of Other Entities Performing Covered Tasks** *Does the OQ plan require other entities that perform covered tasks on behalf of the operator to be qualified? (TQ.OQ.OQCONTRACTOR.P) 192.805(b) (192.805(c);192.805(d);192.805(e);192.805(f))*

**11. Contractor Qualification Documentation Meets Operator Requirements** *Does the OQ plan document that the operator has assured that the processes on which an OQ vendor has evaluated qualified personnel are the same or consistent with those used by the operator for employees and contractors in the field? (TQ.OQ.OQCONTRACTOREQUIV.P) 192.805(h)*

**12. Management of Other Entities Performing Covered Tasks** *If the operator employs other entities to perform covered tasks, such as mutual assistance, are adequate records containing the required elements maintained? (TQ.OQ.OTHERENTITY.R) 192.805(b) (192.805(c);192.803)*

**13. Abnormal Operating Conditions** *Does the OQ Plan contain requirements to assure that individuals performing covered tasks are able to recognize and react to abnormal operating conditions (AOCs)? (TQ.OQ.ABNORMAL.P) 192.803*

**14. Abnormal Operating Conditions** *Do records document evaluation of qualified individuals for recognition and reaction to AOCs? (TQ.OQ.ABNORMAL.R) 192.807(a) (192.807(b);192.803)*

**15. Abnormal Operating Conditions** *Do individuals performing covered tasks have adequate knowledge to recognize and react to abnormal operating conditions? (TQ.OQ.ABNORMAL.O) 192.803*

**16. Personnel Performance Monitoring** *Does the program include provisions to evaluate an individual if there is reason to believe that performance of a covered task contributed to an incident or accident as defined in Parts 192 and 195 or there is reason to believe an individual is no longer qualified to perform a covered task? (TQ.OQ.PERFMONITOR.P) 192.805(d) (192.805(e))*

**17. Personnel Performance Monitoring** *If the operator had an incident/accident where there is reason to believe that an individual contributed to the cause, do records indicate evaluation of the individual following the occurrence? (TQ.OQ.PERFMONITOR.R) 192.805(d) (192.805(e))*

**18. Operator Qualification Plan and Covered Tasks** *Do individuals performing covered tasks demonstrate adequate skills, knowledge, and ability? (TQ.OQ.OQPLAN.O) 192.805(h)*

**19. Management of Changes** *Does the OQ program identify how changes to processes, tools standards and other elements used by individuals in performing covered tasks are communicated to the individuals, including contractor individuals, and how these changes are implemented in the evaluation method(s)? (TQ.OQ.MOC.P) 192.805(f)*

**20. Notification of Significant Plan Changes** *Does the process require significant OQ program changes to be identified and the Administrator or State agency notified? (TQ.OQ.CHANGENOTIFY.P) 192.805(i) (192.18)*

**21. Records of OQ Program Changes** *Are records maintained for changes that affect covered tasks and significant OQ plan changes? (TQ.OQ.CHANGERECORD.R) 192.805(i) (192.805(f);192.18)*

## **Training and Qualification - Qualification of Personnel - Specific Requirements**

**1. Corrosion Control Personnel Qualification** *Does the process require corrosion control processes to be carried out by, or under the direction of, qualified personnel? (TQ.QU.CORROSION.P) 192.453 (192.805(b))*

**2. Corrosion Control Personnel Qualification** *Do records indicate qualification of personnel implementing pipeline corrosion control methods?* (TQ.QU.CORROSION.R) 192.453 (192.807(a);192.807(b))

**3. Qualification of Personnel Tapping Pipelines under Pressure** *Does the process require taps on a pipeline under pressure (hot taps) to be performed by qualified personnel?* (TQ.QU.HOTTAPQUAL.P) 192.627 (192.805(b))

**4. Qualification of Personnel Tapping Pipelines under Pressure** *Do records indicate the qualification of personnel performing hot taps?* (TQ.QU.HOTTAPQUAL.R) 192.627 (192.807(a);192.807(b))

**5. Qualification of Personnel Tapping Pipelines under Pressure** *Do personnel performing hot taps demonstrate adequate skills and knowledge?* (TQ.QU.HOTTAPQUAL.O) 192.627 (192.805(h))

**6. Qualification of Personnel who Oversee and Perform Excavations and Backfilling Operations** *Does the process require individuals who oversee and perform marking, trenching, and backfilling operations be qualified?* (TQ.QU.EXCAVATE.P) 192.805(b) (ADB-06-01;192.801;192.328)

**7. Qualification of Personnel who Oversee and Perform Excavations and Backfilling Operations** *Do records indicate qualification of individuals who oversee marking, trenching, and backfilling operations?* (TQ.QU.EXCAVATE.R) 192.807(a) (192.807(b);ADB-06-01;192.801;192.328)

**8. Qualification of Personnel who Oversee and Perform Excavations and Backfilling Operations** *Do individuals who oversee marking, trenching, and backfilling operations demonstrate adequate skills and knowledge?* (TQ.QU.EXCAVATE.O) 192.805(b) (192.805(h);ADB-06-01;192.801(a);192.328(a);192.328(c))

## Training and Qualification - Qualification of Personnel - Specific Requirements (IM)

**1. Qualification of Personnel for the Integrity Management Program** *Does the process require that operator/vendor personnel (including supervisors and persons responsible for preventive and mitigative measures), who review and evaluate results meet acceptable qualification standards?* (TQ.QUIM.IMREVIEWQUAL.P) 192.915(a) (192.915(b);192.915(c);192.935(b))

**2. Qualification of Personnel for the Integrity Management Personnel** *Do records indicate adequate qualification of integrity management personnel?* (TQ.QUIM.IMREVIEWQUAL.R) 192.947(e) (192.915(a);192.915(b);192.915(c);192.935(b)(1)(i);192.947(d))

**3. Integrity Management Program Quality Control Plan** *Does the process require personnel who execute IM program activities to be competent and qualified in accordance with the quality control plan in accordance with ASME B31.8S-2004, Section 12.2(b)(4)?* (TQ.QUIM.IMQC.P) 192.805(b) (ASME B31.8S-2004, Section 12.2(b)(4);192.935(b)(1)(i);192.907(b);192.911(l))

## Training and Qualification - Qualification of Personnel - Specific Requirements (O and M Construction)

**1. Qualification of Welding Inspectors** *Does the process require welding inspection personnel to be adequately trained and qualified?* (TQ.QUOMCONST.INSPECTOR.P) 192.241(a) (192.241(c);192.805(b);192.328(a);192.328(b))

**2. Qualification of Welding Inspectors** *Do records indicate adequate qualification documentation for personnel who conduct welding inspections?* (TQ.QUOMCONST.INSPECTOR.R) 192.241(a) (192.241(c);192.807(a);192.807(b))

**3. Qualification of Welding Inspectors** *Does the welding inspector demonstrate adequate skills and knowledge?* (TQ.QUOMCONST.INSPECTOR.O) 192.241(a) (192.241(c))

**4. Qualification of Nondestructive Testing Personnel** *Do records indicate the qualification of nondestructive testing personnel?* (TQ.QUOMCONST.NDT.R) 192.243(b)(2) (192.807(a);192.807(b);192.328(a);192.328(b))

**5. Qualification of Welders** *Do records indicate that welders are adequately qualified?* (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))

**6. Qualification of Welders** *Does the process require welders to be qualified in accordance with API 1104 or the ASME Boiler & Pressure Vessel Code?* (TQ.QUOMCONST.WELDER.P) 192.227(a) (192.225(a);192.225(b);192.328(a);192.328(b);192.805(b))

**7. Qualification of Welders for Low Stress Pipe** *Does the process require welders who perform welding on low stress pipe on lines that operate at < 20% SMYS to be qualified under Section I of Appendix C to Part 192, and are welders who perform welding on service line connection to a main required to be qualified under Section II of Appendix C to Part 192?* (TQ.QUOMCONST.WELDERLOWSTRESS.P) 192.227(b) (192.225(a);192.225(b);192.805(b))

**8. Qualification of Welders** *Do welders demonstrate adequate skills and knowledge?* (TQ.QUOMCONST.WELDER.O) 192.227(a) (192.227(b);192.229(a);192.229(b);192.229(c);192.229(d);192.803;192.328(a);192.328(b))

**9. Qualification of Nondestructive Testing Personnel** *Does the process require nondestructive testing of welds to be performed by personnel who are trained and qualified in the established procedures and with the testing equipment employed?* (TQ.QUOMCONST.NDT.P) 192.243(b)(2) (192.803;192.805(b);192.805(h);192.328(a);192.328(b))

**10. Qualification of Nondestructive Testing Personnel** *Do nondestructive testing personnel demonstrate adequate skills and knowledge?* (TQ.QUOMCONST.NDT.O) 192.243(b)(2) (192.803;192.328(a);192.328(b))

**11. Qualification of Personnel Making Joints in Plastic Pipelines** *Does the process require personnel making joints in plastic pipelines be qualified?* (TQ.QUOMCONST.PLASTIC.P) 192.285(a) (192.285(d);192.805(b))

**12. Qualification of Personnel Inspecting Joints in Plastic Pipelines** *Does the process require that persons who inspect joints in plastic pipes be qualified?* (TQ.QUOMCONST.PLASTICINSPECT.P) 192.287 (192.805(b))

**13. Qualification of Personnel Making Joints in Plastic Pipelines** *Do records indicate adequate qualification of personnel making/inspecting joints in plastic pipelines?* (TQ.QUOMCONST.PLASTIC.R) 192.285(a) (192.285(d);192.287;192.807(a);192.807(b))

**14. Qualification of Personnel Making Joints in Plastic Pipelines** *Do personnel making/inspecting joints in plastic pipelines demonstrate adequate skills and knowledge?* (TQ.QUOMCONST.PLASTIC.O) 192.285(a) (192.287;192.803)

## Training and Qualification - Training of Personnel

**1. Emergency Response Training** *Does the process require a continuing training program to be in place to effectively instruct emergency response personnel?* (TQ.TR.TRAINING.P) 192.615(b)(2) (192.805(b))

**2. Emergency Response Training** *Is training for emergency response personnel documented?* (TQ.TR.TRAINING.R) 192.615(b)(2) (192.807(a);192.807(b))

**3. Emergency Response Training** *Do emergency response personnel demonstrate adequate skills and knowledge?* (TQ.TR.TRAINING.O) 192.615(b)(2) (192.805(b))

**4. Emergency Response Training Performance Review** *Does the process require review of emergency response personnel performance?* (TQ.TR.TRAININGREVIEW.P) 192.615(b)(3)

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