**Operator and General Audit Information**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Company:** | **Name:** | | | |
|  | | | |
| **Mailing and Official Address (If different):** | | | |
|  | | | |
| **Doing Business as or Affiliation:** | | | |
|  | | | |
| **PHMSA Operator Identification (OPID) No.** | |  | | |
| **LA DNR Pipeline Number (PL Number)** | |  | | |
| **Unit ID Number/ Unit Name inspected** | |  | | |
| **Operator’s Local Address:** |  | | **Lead Inspector:** |  |
| **Attending Inspectors:** |  |
| **Dates of Inspection:** |  |

**Company Representatives Participating**

|  |  |
| --- | --- |
| **Key Persons** | **Name / Title / Mailing Address / Phone / Email** |
| **Company Rep**  **(VP or Higher)** |  |
| **Interviewed,**  **Providing Information or Present during the Inspection** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **(See Note Below for \* Items)** | | **1** | **2** | **3** | **4** | **5** | **6** |
| FACILITY NAME(S): | |  |  |  |  |  |  |
| **\*(A)** | PRODUCT |  |  |  |  |  |  |
| **(B)** | TANK # |  |  |  |  |  |  |
| **(C)** | CONSTRUCTION YEAR and API STANDARD |  |  |  |  |  |  |
| **\*(D)** | CONSTRUCTION TYPE |  |  |  |  |  |  |
| **(E)** | CAPACITY (Gal) |  |  |  |  |  |  |
| **(F)** | LINING? (Y/N) |  |  |  |  |  |  |
| **(G)** | LINING TYPE? |  |  |  |  |  |  |
| **(H)** | TANK HT.(FT) |  |  |  |  |  |  |
| **(I)** | MAX. FILL HT. (FT) |  |  |  |  |  |  |
| **(J)** | DIA (FT) |  |  |  |  |  |  |
| **\*(K)** | ROOF TYPE |  |  |  |  |  |  |
| **\*(L)** | VOLUMETRIC ALARM(S) |  |  |  |  |  |  |
| **(M)** | DIKE  VOLUME (BBL) |  |  |  |  |  |  |
| **\*(N)** | DATE LAST INTERNAL INSPECTION |  |  |  |  |  |  |
| **\*(O)** | OUT OF SERVICE REPAIR OR OTHER MAJOR REPAIR |  |  |  |  |  |  |
| **(P)** | DATE API 653 APPLIED |  |  |  |  |  |  |
| **\*(Q)** | CP TYPE & ANODE TYPE |  |  |  |  |  |  |
| **\*(R)** | C P MONITORING |  |  |  |  |  |  |
| **(S)** | DUE DATE FOR NEXT INTERNAL INSPECTION? |  |  |  |  |  |  |
| **(T)** | INTERNAL INSPECTION INTERVAL? (YEARS) |  |  |  |  |  |  |
| **\*(U)** | INTERNAL INSPECTION INTERVAL BASIS? |  |  |  |  |  |  |
|  | DATE LAST EXTERNAL INSPECTION |  |  |  |  |  |  |
| **(V)** | DUE DATE FOR NEXT EXTERNAL INSPECTION? |  |  |  |  |  |  |
| **\*(W)** | EXTERNAL INSPECTION INTERVAL BASIS? |  |  |  |  |  |  |
|  | DATE LAST U.T. INSPECTION |  |  |  |  |  |  |
| **(X)** | DUE DATE FOR NEXT U. T. INSPECTION? |  |  |  |  |  |  |
| **(Y)** | SHELL U.T. INSPECTION INTERVAL |  |  |  |  |  |  |
| **\*(Z)** | SHELL U.T. INSPECTION INTERVAL BASIS? |  |  |  |  |  |  |

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**Liquid - undefined**

**Design and Construction - Construction**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **28. Valve Accessibility** Are valves accessible to authorized employees and protected from damage or tampering? (DC.CO.VALVEPROTECT.O) 195.258(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **35. Valve Locations** Are valves located as specified by §195.260? (DC.CO.VALVELOCATION.O) 195.260(a) (195.260(b);195.260(c);195.260(d);195.260(e);195.260(f);195.260(g)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Design and Construction - Design**

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**Design and Construction - Maintenance and Operations**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Safety - Maintenance Construction and Testing** Does the process ensure that pipeline maintenance construction and testing activities are made in a safe manner and are made so as to prevent damage to persons and property? (DC.MO.SAFETY.P) 195.402(a) (195.422(a);195.402(c)(14)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Part 195 Requirements**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. New Aboveground Breakout Tank Specifications** Does the process for new aboveground atmospheric breakout tanks require tank design and construction to meet the requirements of 195.132(b)(3)? (TDC.650REGS.TANKSPEC.P) 195.132(b)(3) (API Std 650) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. New Aboveground Breakout Tank Specifications** Do the design records and drawings indicate new aboveground atmospheric breakout tanks are designed and constructed to the specifications required by 195.132(b)(3)? (TDC.650REGS.TANKSPEC.R) 195.132(b)(3) (API Std 650) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. New Aboveground Breakout Tank Specifications** Do field observations confirm the new aboveground atmospheric breakout tank(s) are designed and being constructed to the specifications required by 195.132(b)(3)? (TDC.650REGS.TANKSPEC.O) 195.132(b)(3) (API Std 650) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. New Aboveground Breakout Tank Internal Design Pressure** Does the process for new aboveground atmospheric breakout tanks require design and construction to withstand the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads? (TDC.650REGS.TANKDESPRESS.P) 195.132(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. New Aboveground Breakout Tank Internal Design Pressure** Do the design records and drawings indicate the new aboveground breakout tank(s) are designed and constructed to withstand the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads? (TDC.650REGS.TANKDESPRESS.R) 195.132(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. New Aboveground Breakout Tank Internal Design Pressure** Do field observations confirm the new aboveground breakout tank(s) are designed and constructed to withstand the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads? (TDC.650REGS.TANKDESPRESS.O) 195.132(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Breakout Tank Repair, Alteration, and Reconstruction** Are breakout tanks required to be repaired, altered, or reconstructed in compliance with the requirements of 195.205(b)(1)? (TDC.650REGS.REPAIRSPEC.P) 195.205(b)(1) (API Std 650;API Std 653) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Breakout Tank Repair, Alteration, and Reconstruction** Do field observations confirm breakout tanks are being repaired, altered, or reconstructed in compliance with the requirements of 195.205(b)(1)? (TDC.650REGS.REPAIRSPEC.O) 195.205(b)(1) (API Std 650;API Std 653) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Breakout Tank CP - System Design (API RP 651)** Does the process for new aboveground breakout tanks require cathodic protection system design to conform with API 651, Sections 6.2 and 6.3, as required by 195.565? (TDC.650REGS.CPDESIGN.P) 195.565 (195.563(d);195.132(b)(3);API RP 651, Section 6.3.4;API RP 651, Section 6.3.5;API RP 651, Section 7.2.1;API RP 651, Section 11.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Breakout Tank CP - System Design (API RP 651)** Do records demonstrate new aboveground breakout tanks have cathodic protection installed as required by 195.565? (TDC.650REGS.CPDESIGN.R) 195.565 (195.404(c);195.563(d);195.589(a);195.589(b);195.589(c);API RP 651, Section 6.3.4;API RP 651, Section 6.3.5;API RP 651, Section 7.2.1;API RP 651, Section 11.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Breakout Tank CP - System Design (API RP 651)** Do field observations confirm new breakout tanks have cathodic protection installed in accordance with 195.565? (TDC.650REGS.CPDESIGN.O) 195.565 (195.563(d);API RP 651, Section 6.3.4;API RP 651, Section 6.3.5;API RP 651, Section 7.2.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Breakout Tank - Venting or Pressure/Vacuum Relief** Does the process for new aboveground breakout tanks require normal / emergency (pressure/vacuum) relief venting to be provided for each tank in accordance with 195.264(d) and (e)? (TDC.650REGS.RELIEFVENT.P) 195.264(e) (195.264(d);API 650;API Std 2000) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Breakout Tank - Venting or Pressure/Vacuum Relief** Do design records indicate normal / emergency (pressure/vacuum) relief venting was provided for each for new aboveground breakout tank in accordance with 195.264(d) and (e)? (TDC.650REGS.RELIEFVENT.R) 195.264(e) (195.264(d);API 650;API Std 2000) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Breakout Tank - Venting or Pressure/Vacuum Relief** Do field observations confirm normal / emergency (pressure/vacuum) relief venting was provided for each for new aboveground breakout tank in accordance with 195.264(d) and (e)? (TDC.650REGS.RELIEFVENT.O) 195.264(e) (195.264(d);API 650;API Std 2000) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Breakout Tank Overfill Protection** Does the new tank design require product level alarm devices to be installed to indicate a rise of the liquid in the tank to a level above the normal and overfill protection levels in accordance with 195.428(c)? (TDC.650REGS.OVERFILLPROT.P) 195.428(c) (195.402(c);195.132(b)(3);API Std 2350, Section 4.6;API Std 2350, Section 4.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Breakout Tank Overfill Protection** Do records indicate product level alarm devices were installed and set to alarm at a level above the normal and overfill protection levels in accordance with 195.428(c)? (TDC.650REGS.OVERFILLPROT.R) 195.428(c) (195.404(a);195.404(b);195.404(c);195.132(b)(3);API Std 2350, Section 4.6;API Std 2350, Section 4.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Breakout Tank Overfill Protection** Do field observations confirm product level alarm devices were installed and set to alarm at the design levels (level above the normal and overfill protection levels) in accordance with 195.428(c)? (TDC.650REGS.OVERFILLPROT.O) 195.428(c) (195.132(b)(3);API Std 2350, Section 4.6;API Std 2350, Section 4.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **18. Breakout Tank Overfill Protection - Testing & Acceptance** Does the design process require testing and inspection of the overfill protection system upon initial installation? (TDC.650REGS.OVERFILLTESTING.P) 195.428(c) (API 2350, Section 4.8.1;API 2350, Section 4.8.2(a);API 2350, Section 4.8.7;API 650, Appendix H.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **19. Breakout Tank Overfill Protection - Testing & Acceptance** Do records indicate testing and inspection of the overfill protection system was performed upon initial installation? (TDC.650REGS.OVERFILLTESTING.R) 195.428(c) (API 2350, Section 4.8.2(a);API 2350, Section 4.8.7;API 2350, Section 4.8.1;API 650, Appendix H.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **20. Breakout Tank Overfill Protection - Testing & Acceptance** Do field observations indicate testing and inspection of the tank overfill protection system was performed? (TDC.650REGS.OVERFILLTESTING.O) 195.428(c) (API 2350, Section 4.8.2(a);API 650, Appendix H.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **21. Breakout Tank Overfill Protection - SCADA** Does the process require initial testing of applicable SCADA overfill protection systems for each new tank? (TDC.650REGS.OVERFILLSCADA.P) 195.446(c)(2) (195.428(d);API RP 2350) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **24. Breakout Tanks - Floating Roof Access & Egress** Do the tank and roof design specifications require review and consideration of the hazards associated with access/egress onto floating roofs and the potentially hazardous conditions, safety practices and procedures in API Publication 2026? (TDC.650REGS.ROOFEGRESS.P) 195.405(b) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **25. Breakout Tanks - Floating Roof Access & Egress** Do records indicate review was conducted for consideration of the hazards associated with access/egress onto floating roofs and the potentially hazardous conditions, safety practices and procedures in API Publication 2026? (TDC.650REGS.ROOFEGRESS.R) 195.405(b) (195.404(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **26. Breakout Tanks - Protection Against Ignitions** Does the aboveground atmospheric breakout tank design process require design and installation of protections against ignitions arising out of static electricity, lightning, and stray currents in accordance with API RP 2003? (TDC.650REGS.IGNITIONPROT.P) 195.405(a) (API RP 2003) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **27. Breakout Tanks - Protection Against Ignitions** Do records for the aboveground atmospheric breakout tank(s) indicate the design and installation of protections against ignitions arising out of static electricity, lightning, and stray currents in accordance with API RP 2003? (TDC.650REGS.IGNITIONPROT.R) 195.405(a) (API RP 2003) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **28. Breakout Tanks - Protection Against Ignitions** Do field observations confirm installation of tank protections against ignitions arising out of static electricity, lightning, and stray currents in accordance with API RP 2003? (TDC.650REGS.IGNITIONPROT.O) 195.405(a) (API RP 2003) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **30. Breakout Tanks - Impoundment** Do records indicate that new aboveground breakout tanks include impoundment(s) meet the requirements of 195.264 in the event of tank spillage or failure? (TDC.650REGS.IMPOUNDMENT.R) 195.264(a) (195.264(b);195.264(c);195.264(d);195.264(e);NFPA 30) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **31. Breakout Tanks - Impoundment** Do field observations confirm that impoundment(s) for new aboveground breakout tanks were installed in accordance with the requirements of 195.264? (TDC.650REGS.IMPOUNDMENT.O) 195.264(a) (195.264(b);195.264(c);195.264(d);195.264(e);NFPA 30) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **32. Breakout Tank Areas - Unauthorized Entry** Does the process for new aboveground breakout tank areas require protection against unauthorized entry? (TDC.650REGS.UNAUTHENTRY.P) 195.264(c) (195.436) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **33. Breakout Tank Areas - Unauthorized Entry** Do records indicate protection against unauthorized entry was provided for new aboveground breakout tank areas? (TDC.650REGS.UNAUTHENTRY.R) 195.264(c) (195.436) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **34. Breakout Tank Areas - Unauthorized Entry** Do field observations confirm adequate protection against unauthorized entry was provided for new aboveground breakout tanks areas? (TDC.650REGS.UNAUTHENTRY.O) 195.264(c) (195.436) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **35. Breakout Tank Areas - Firefighting Equipment** Does the process define what firefighting equipment is needed to respond to emergencies at the facility and provide for procedures and training of personnel? (TDC.650REGS.FIREEQUIP.P) 195.430(a) (195.430(b);195.430(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **36. Breakout Tank Areas - Firefighting Equipment** Do records indicate determination of what firefighting equipment is needed to respond to emergencies at the facility and for procedures and training of personnel? (TDC.650REGS.FIREEQUIP.R) 195.430(a) (195.430(b);195.430(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **37. Breakout Tank Areas - Firefighting Equipment** Do field observations confirm the necessary firefighting equipment to respond to emergencies is included at the facility's breakout tank area? (TDC.650REGS.FIREEQUIP.O) 195.430(a) (195.430(b);195.430(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **38. Breakout Tanks - Bottom Linings** Does the process for new aboveground breakout tanks require bottom linings to protect against internal corrosion in accordance with 195.579(d)? (TDC.650REGS.BOTTOMLINING.P) 195.579(d) (195.402(c);API RP 652) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **39. Breakout Tanks - Bottom Linings** Do records indicate the installation of bottom linings for new aboveground breakout tanks meet the requirements of 195.579(d)? (TDC.650REGS.BOTTOMLINING.R) 195.579(d) (195.404(a);API RP 652;195.404(b);195.404(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **40. Breakout Tanks - Bottom Linings** Do field observations confirm the installation of bottom linings for new aboveground breakout tanks meet the requirements of 195.579(d)? (TDC.650REGS.BOTTOMLINING.O) 195.579(d) (API RP 652) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Foundation Design**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Seismic Tank Design (API 650 Appendix E)** For tanks located in regions that may be subject to seismic ground motion (earthquakes), does the process require adherence to API 650, Appendix E - "Seismic Design of Storage Tanks" and a site-specific seismic study (Appendix E.4.2.1)? (TDC.650FDN.SEISMICDESIGN.P) 195.132(b)(3) (API 650, Appendix E.1;API 650, Appendix E.3;API 650, Appendix E.4;API 650, Appendix E.5;API 650, Appendix E.6;API 650, Appendix E.7;ASCE 7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Seismic Tank Design (API 650 Appendix E)** For tanks located in regions that may be subject to SEISMIC ground motion (earthquakes), do records (design package) indicate a site-specific seismic study was performed (Appendix E.4.2.1) and the seismic requirements of API 650, Appendix E, are incorporated? (TDC.650FDN.SEISMICDESIGN.R) 195.132(b)(3) (API 650, Appendix E.1;API 650, Appendix E.3;API 650, Appendix E.4;API 650, Appendix E.5;API 650, Appendix E.6;API 650, Appendix E.7;ASCE 7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Seismic Tank Design (API 650 Appendix E)** For tanks located in regions that may be subject to SEISMIC ground motion (earthquakes), do field observations indicate that the seismic design requirements from API 650, Appendix E, were implemented and/or installed? (TDC.650FDN.SEISMICDESIGN.O) 195.132(b)(3) (API 650, Appendix E.1;API 650, Appendix E.3;API 650, Appendix E.4;API 650, Appendix E.5;API 650, Appendix E.6;API 650, Appendix E.7;ASCE 7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| **4. Foundation - General Design, Subsurface Conditions, and Ringwall** Are the tank specifications complete for the proper procedure/aspect of tank foundation and ringwall design and construction? (TDC.650FDN.FDNDESIGN.P) 195.132(b)(3) (API 650, Appendix B.1;API 650, Appendix B.2;API 650, Appendix B.3;API 650, Appendix B.4;API 650, Appendix E.7.6;API 650, Section 5.3.1.2;API 650, Section 5.11.4) | | | | | | | |
| |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  |
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| **5. Foundation - General Design, Subsurface Conditions, and Ringwall** Do field observations confirm the tank foundation and ringwall were constructed and/or installed in accordance with the design specifications? (TDC.650FDN.FDNDESIGN.O) 195.132(b)(3) (API 650, Appendix B.2;API 650, Appendix B.3;API 650, Appendix B.4) | | | | | | | |
| |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Foundation Design - Subsurface Conditions** Do records demonstrate all of the subsurface conditions and factors that affect foundation design were investigated? (TDC.650FDN.SUBSURFACE.R) 195.132(b)(3) (API 650, Appendix B.2.2;API 650, Appendix B.2.3;API 650, Appendix B.2.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Foundation Design - Subsurface Conditions** Do field observations confirm the subsurface conditions and factors match the foundation design? (TDC.650FDN.SUBSURFACE.O) 195.132(b)(3) (API 650, Appendix B.2.2;API 650, Appendix B.2.3;API 650, Appendix B.2.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Foundation Design - Clean Sand Pad Material** Do field observations confirm tank sand pad materials and tank pad construction conform to the design specifications? (TDC.650FDN.SANDPAD.O) 195.565 (195.132(b)(3);API 650;API 651, Section 5.3.1;API 651, Section 5.3.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Foundation Design - Undertank Leak Detection** Where an undertank leak detection system was included, do field observations confirm the undertank leak detection system was installed in accordance with the design specifications? (TDC.650FDN.UNDERTANKLEAKDET.O) 195.132(b)(3) (API 650, Appendix I.1.3;API 650, Appendix I.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Foundation Design - Grading and Drainage** Do records indicate grade provisions for tank bottom elevation, crowning, drainage, and compensation for any settlement expectation was provided? (TDC.650FDN.GRADING.R) 195.132(b)(3) (API 650, Appendix B.3.1;API 650, Appendix B.3.3;API 650, Appendix B.3.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Foundation Design - Concrete Ringwall** For earthen tank foundations with a CONCRETE ringwall, do records indicate the ringwall meets the design specifications? (TDC.650FDN.CONCRINGWALL.R) 195.132(b)(3) (API 650, Appendix B.4.2.2;API 650, Appendix B.4.2.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Foundation Design - Concrete Slab Foundation** Where the soil bearing capacity is limited and loading must be distributed over an area larger than the tank area, do records indicate the reinforced concrete slab meets the design specifications? (TDC.650FDN.SLABDES.R) 195.132(b)(3) (API 650, Appendix B.4.4;ACI 318) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Foundation Design - Sliding Resistance from Lateral Wind Load** For tanks subject to lateral wind loading, do records (design package) indicate sliding friction resistance was accounted for? (TDC.650FDN.SLIDING.R) 195.132(b)(3) (API 650, Section 5.3.1.2;API 650, Section 5.11.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Floor Design**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Floor - Lap-Welded Bottom Plate Joints** Does the tank floor design specify that lap-welded bottom plates and joint welding conform to API 650, Section 5.1.5.4? (TDC.650FLOOR.BOTTOMJOINTS.P) 195.132(b)(3) (API 650, Section 5.1.5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Floor - Lap-Welded Bottom Plate Joints** Do records indicate that lap-welded bottom plates and joint welding conforms to the design specifications? (TDC.650FLOOR.BOTTOMJOINTS.R) 195.132(b)(3) (API 650, Section 5.1.5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Floor - Lap-Welded Bottom Plate Joints** Do field observations confirm that lap-welded bottom plates and joint welding conforms to the design specifications? (TDC.650FLOOR.BOTTOMJOINTS.O) 195.132(b)(3) (API 650, Section 5.1.5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Floor - Weld Pass Restrictions** Does the tank floor design specify weld pass restrictions as defined in API 650, Section 5.1.3.6? (TDC.650FLOOR.WELDPASSRES.P) 195.132(b)(3) (API 650, Section 5.1.3.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Floor - Weld Pass Restrictions** Do field observations confirm weld pass restrictions were in accordance with API 650, Section 5.1.3.6? (TDC.650FLOOR.WELDPASSRES.O) 195.132(b)(3) (API 650, Section 5.1.3.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Floor - Annular Plate Joints** Does the tank annular floor plate design specify that that butt-welded bottom plates and butt joint welding conforms to API 650, Section 5.1.5.5? (TDC.650FLOOR.ANNULARPLATES.P) 195.132(b)(3) (API 650, Section 5.1.5.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Floor - Annular Plate Joints** Do field observations confirm that lap-welded bottom plates and joint welding conforms to the design specifications? (TDC.650FLOOR.ANNULARPLATES.O) 195.132(b)(3) (API 650, Section 5.1.5.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Floor - Annular Bottom Plate Radial Width** Do field observations confirm that annular bottom plates were installed to the design specifications? (TDC.650FLOOR.ANNULARPLATESIZE.O) 195.132(b)(3) (API 650, Section 5.4.2;API 650, Section 5.5.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Floor - Shell-to-Bottom Fillet Welds** Does the tank floor design specify that shell-to-bottom plates welding conform to API 650, Section 5.1.5.7? (TDC.650FLOOR.SHELLBOTTOMWELDS.P) 195.132(b)(3) (API 650, Section 5.1.5.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Floor - Shell-to-Bottom Fillet Welds** Do field observations confirm shell-to-bottom plates welding conforms to the design specifications? (TDC.650FLOOR.SHELLBOTTOMWELDS.O) 195.132(b)(3) (API 650, Section 5.1.5.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Floor - Bottom Plate Size** Does the tank floor design specify that bottom plate thickness and sizing design conform to API 650, Section 5.4? (TDC.650FLOOR.BOTTOMPLATES.P) 195.132(b)(3) (API 650, Section 5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Floor - Bottom Plate Size** Do field observations confirm that installed bottom plates conform to the design specifications? (TDC.650FLOOR.BOTTOMPLATES.O) 195.132(b)(3) (API 650, Section 5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Shell Design**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Shell - Plate Design** Does the tank design require shell plate dimensions to conform with API 650, Section 5.6.1? (TDC.650SHELL.PLATEDESIGN.P) 195.132(b)(3) (API 650, Section 5.6.1.1;API 650, Section 5.6.1.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Shell - Stability Against Buckling** Do the procedures include checking for stability against buckling from the design wind speed in accordance with Section 5.9.7 (Wind Girders)? (TDC.650SHELL.BUCKLING.P) 195.132(b)(3) (API 650, Section 5.6.1.4;API 650, Section 5.9.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Shell - Stability Against Buckling** Where applicable, do field observations verify the presence of wind girders as required by the shell design for stability against buckling? (TDC.650SHELL.BUCKLING.O) 195.132(b)(3) (API 650, Section 5.6.1.4;API 650, Section 5.9.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Shell - Plate Design Stress** Does the operator's design procedures require determination of maximum allowable product design stress and maximum allowable hydrostatic test stress based on permissible plate materials in API 650, Tables 5-2a and 5-2b? (TDC.650SHELL.PLATESTRESS.P) 195.132(b)(3) (API 650, Section 5.6.2.1;API 650, Section 5.6.2.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Shell - Plate Design Stress** Do records (design package) indicate the maximum allowable product design stress and maximum allowable hydrostatic test stress meet the requirements of the design specifications? (TDC.650SHELL.PLATESTRESS.R) 195.132(b)(3) (API 650, Section 5.6.2.1;API 650, Section 5.6.2.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Shell - Course Thickness Method** Do records (design package) indicate the selected course thickness method met the design requirements? (TDC.650SHELL.THICKNESSMETHOD.R) 195.132(b)(3) (API 650, Section 5.6.3;API 650, Section 5.6.4;API 650, Section 5.6.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Shell - Shell Rough Spots Damage to Rim Seal** For IFR tanks, are there any rough spots, such as temporary welds or other sharp objects, that could damage the seal? (TDC.650SHELL.ROUGHSPOTS.O) 195.132(b)(3) (API 650, Appendix H.4.4.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Internal Floating Roof (IFR)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. IFR - Electrical Bonding** For IFR tanks, do records (design package) indicate all conductive parts of the internal floating roof are electrically interconnected and bonded to the outer tank structure? (TDC.650IFR.ELECTRBONDING.R) 195.132(b)(3) (API 650, Appendix H.4.1.6;API 650, Appendix L, Line 32) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. IFR - Compartment Design** For IFR tanks, do records (design package) indicate each closed flotation compartment is capable of being field inspected for the presence of combustible gas? (TDC.650IFR.COMPARTMENT.R) 195.132(b)(3) (API 650, Appendix H.4.1.7;API 650, Appendix L, Line 23;API 650, Appendix L, Line 34) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. IFR - Buoyancy Design** For IFR tanks, do roof design records (or design package) indicate buoyancy calculations were based on the lower of the product specific gravity or 0.7 regardless of any higher specific gravity that might be specified by the operator? (TDC.650IFR.BUOYANCY.R) 195.132(b)(3) (API 650, Appendix H.4.2.1;API 650, Appendix W.4.10.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. IFR - Load Design** For IFR tanks, do design records (or design package) indicate the floating roof and supporting legs were constructed to safely support the load requirements in the design specifications? (TDC.650IFR.LOADDESIGN.R) 195.132(b)(3) (API 650, Appendix H.4.2.2;API 650, Appendix W.4.10.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. IFR - Roof Penetrations** For IFR tanks, do field observations confirm appurtenances (columns, ladders, and other attachments) that penetrate the deck were provided with a seal in accordance with the design specifications? (TDC.650IFR.PENETRATIONS.O) 195.132(b)(3) (API 650, Appendix H.4.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. IFR - Floor Landing Pads** For IFR tanks, do field observations confirm steel floor pads were installed to distribute the loads on the bottom of the tank and provide a wear surface? (TDC.650IFR.LANDINGPADS.O) 195.132(b)(3) (API 650, Appendix H.4.6.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. IFR - Aluminum Isolation from Steel** For IFR tanks where aluminum supports are used, do field observations confirm they are isolated from carbon steel by an austenitic stainless steel spacer, an elastomeric bearing pad, or equivalent protection? (TDC.650IFR.ALUMISOLATION.O) 195.132(b)(3) (API 650, Appendix H.4.6.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. IFR - Internal Linings** For IFR tanks with internal linings, do field observations confirm that the contact point between the support leg and tank bottom were constructed to protect the lining and minimize corrosion? (TDC.650IFR.LININGS.O) 195.132(b)(3) (API 650, Appendix H.4.6.9) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. IFR - Floating Roof Vents** For IFR tanks, do field observations confirm floating roof vents were provided? (TDC.650IFR.IFRVENTS.O) 195.132(b)(3) (API 650, Appendix H.5.2.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. IFR - Peripheral and Center Circulation Vents** For IFR tanks, do records (design package) indicate circulation vents (on the tank shell and/or roof) and a center circulation vent were provided and meet the requirements of API 650, Appendix H.5.2.2? (TDC.650IFR.CIRCVENTS.R) 195.132(b)(3) (API 650, Appendix H.5.2.2;API 650, Appendix L, Line 29, Table 4;API 650, Appendix W.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. IFR - Peripheral and Center Circulation Vents** For IFR tanks, do field observations confirm circulation vents were installed and meet the design specifications? (TDC.650IFR.CIRCVENTS.O) 195.132(b)(3) (API 650, Appendix H.5.2.2;API 650, Appendix L, Line 29, Table 4;API 650, Appendix W.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. IFR - Centering and Anti-Rotation Devices** For IFR tanks, do field observations confirm the centering and anti-rotation devices have been installed? (TDC.650IFR.CENTERING.O) 195.132(b)(3) (API 650, Appendix H.5.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. IFR - Manholes** For IFR tanks, do field observations confirm at least one fixed-roof manhole and one internal floating roof deck manhole have been provided for access to and ventilation of the tank? (TDC.650IFR.MANHOLES.O) 195.132(b)(3) (API 650, Appendix H.5.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Fixed Roof**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Fixed Roof - Loads Design** Do records indicate the fixed roof and supporting structures were designed and constructed in accordance with API 650, Appendix R? (TDC.650FXDROOF.LOADSDES.R) 195.132(b)(3) (API 650, Section 5.10.2.1;API 650, Appendix R;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Fixed Roof - Roof Plate Thickness** Do records (MTRs) indicate fixed roof plates have a minimum nominal thickness of 3/16-inch or 7-gauge sheet? (TDC.650FXDROOF.PLATETHICK.R) 195.132(b)(3) (API 650, Section 5.10.2.2;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Fixed Roof - Roof Plate Thickness** Do field observations confirm fixed roof plates have a minimum nominal thickness of 3/16-inch or 7-gauge sheet? (TDC.650FXDROOF.PLATETHICK.O) 195.132(b)(3) (API 650, Section 5.10.2.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Fixed Roof - Roof Plate Top Angle Attachment Weld** Do field observations confirm roof plates are attached to the top angle of the tank with a continuous fillet weld on the top side? (TDC.650FXDROOF.PLATETOPANGLE.O) 195.132(b)(3) (API 650, Section 5.10.2.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Fixed Roof - Frangible Roof** For tanks designed with a "Frangible" Fixed Roof, do records indicate frangible roof was designed to conform with API 650, Section 5.10.2.6? (TDC.650FXDROOF.FRANGIBLE.R) 195.132(b)(3) (API 650, Section 5.10.2.6;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Fixed Roof - Frangible Roof** For tanks designed with a "Frangible" Fixed Roof, do field observations confirm the frangible roof was constructed to conform with API 650, Section 5.10.2.6? (TDC.650FXDROOF.FRANGIBLE.O) 195.132(b)(3) (API 650, Section 5.10.2.6;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Supported Cone Roofs - Roof Slope** For supported cone roofs, do records (design specification or drawing) indicate the roof was installed with a slope of 1:16? (TDC.650FXDROOF.SLOPE.R) 195.132(b)(3) (API 650, Section 5.10.4.1;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Supported Cone Roofs - Roof Slope** For supported cone roofs, do field observations confirm the roof was installed with a slope of 1:16, or greater if specified? (TDC.650FXDROOF.SLOPE.O) 195.132(b)(3) (API 650, Section 5.10.4.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Supported Cone Roofs - Column Type** For supported cone roofs, do records (design package) indicate the roof column type and column base meet the design requirements (and API 650, Section 5.10.4)? (TDC.650FXDROOF.COLUMNTYPE.R) 195.132(b)(3) (API 650, Section 5.10.4.5;API 650, Section 5.10.4.7;API 650, Section 5.10.4.8;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Supported Cone Roofs - Column Type** For supported cone roofs, do records (design package) indicate the roof column type and column base meet the design requirements (and API 650, Section 5.10.4)? (TDC.650FXDROOF.COLUMNTYPE.O) 195.132(b)(3) (API 650, Section 5.10.4.5;API 650, Section 5.10.4.7;API 650, Section 5.10.4.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Supported Cone Roofs - Center Columns** For supported cone roofs, do records indicate the tank center column design includes both the balanced snow load and unbalanced snow load? (TDC.650FXDROOF.CENTERCOLUMNS.R) 195.132(b)(3) (API 650, Section 5.10.4.10;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - External Floating Roof (EFR)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. EFR - Deck General Design Requirements** For EFRs, does the operator’s process require the deck design to include the parameters from API 650, Appendix C? (TDC.650EFR.DECKGENERAL.P) 195.132(b)(3) (API 650, Appendix C.3.3;API 650, Appendix C.3.4;API 650, Appendix C.3.5;API 650, Appendix C.3.7;API 650, Appendix C.3.8.1;API 650, Appendix C.3.9;API 650, Appendix C.3.10;API 650, Appendix C.3.11;API 650, Appendix C.3.12;API 650, Appendix C.3.13;API 650, Appendix C.3.14;API 650, Appendix C.3.15;API 650, Appendix C.4.2;API 650, Appendix C.4.5;API 650, Appendix C.3.8.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. EFR - Deck General Design Requirements** For EFRs, do records (design package) indicate the deck design meets the requirements of API 650, Appendix C? (TDC.650EFR.DECKGENERAL.R) 195.132(b)(3) (API 650, Appendix C.3.3;API 650, Appendix C.3.4;API 650, Appendix C.3.5;API 650, Appendix C.3.7;API 650, Appendix C.3.8.1;API 650, Appendix C.3.9;API 650, Appendix C.3.10;API 650, Appendix C.3.11;API 650, Appendix C.3.12;API 650, Appendix C.3.13;API 650, Appendix C.3.14;API 650, Appendix C.3.15;API 650, Appendix C.4.2;API 650, Appendix C.4.5;API 650, Appendix C.3.8.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. EFR - Top Deck Slope** For EFRs, do field observations confirm top decks of double-deck roofs and of pontoon sections which are designed with a permanent slope, have been erected with minimum slope of 1 in 64 and lapped to minimize accumulation of standing water? (TDC.650EFR.TOPDECKSLOPE.O) 195.132(b)(3) (API 650, Appendix C.3.3.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. EFR - Roof Buoyancy** For EFRs, do records indicate the floating roof was designed to have sufficient buoyancy in accordance with the design specifications? (TDC.650EFR.BUOYANCY.R) 195.132(b)(3) (API 650, Appendix C.3.4.1;API 650, Appendix W.4.9.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. EFR - Pontoon Manholes** For EFRs, do field observations confirm each tank pontoon compartment was provided with a liquid-tight pontoon manhole? (TDC.650EFR.MANHOLES.O) 195.132(b)(3) (API 650, Appendix C.3.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. EFR - Ladders** For EFRs, do field observations verify the floating roof includes a ladder that automatically adjusts to any roof position so that access to the roof is always provided? (TDC.650EFR.LADDERS.O) 195.132(b)(3) (API 650, Appendix C.3.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. EFR - Roof Drains** For EFRs, do field observations confirm installed drainpipe and hose systems of primary drains comply with the design specifications and were pressure tested with water at a pressure of 50 psig? (TDC.650EFR.ROOFDRAINS.O) 195.132(b)(3) (API 650, Appendix C.3.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. EFR - Deck Vacuum Breaker Vents** For EFRs, do field observations verify vents (vacuum breakers) were properly installed per the design specifications? (TDC.650EFR.VACBREAKERS.O) 195.132(b)(3) (API 650, Appendix C.3.9) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. EFR - Floating Roof Supporting Legs** For EFRs, do field observations confirm the support legs and attachments meet the design parameters? (TDC.650EFR.SUPPORTLEGS.O) 195.132(b)(3) (API 650, Appendix C.3.10) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. EFR - Floating Roof Supporting Legs Landing Pads** For EFRs, do field observations confirm steel floor landing pads were installed to distribute the loads on the bottom of the tank and provide a wear surface? (TDC.650EFR.LANDINGPADS.O) 195.132(b)(3) (API 650, Appendix C.3.10.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. EFR - Floating Roof Access Manholes** For EFRs, do field observations confirm the number and type of roof manholes conform to the design specifications? (TDC.650EFR.ROOFMANHOLE.O) 195.132(b)(3) (API 650, Appendix C.3.11) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. EFR - Roof Centering and Anti-Rotation Devices** For EFRs, do field observations confirm devices have been installed to maintain the roof in a centered position and to prevent it from rotating? (TDC.650EFR.ANTIROTATE.O) 195.132(b)(3) (API 650, Appendix C.3.12) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. EFR - Deck Seams Leak Testing** For EFRs, do field observations confirm leak testing for deck seams (and other joints that are required to be liquid or vapor tight) were leak tested by means of penetrating oil? (TDC.650EFR.DECKLEAKTEST.O) 195.132(b)(3) (API 650, Appendix C.4.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Welding & NDT**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Welding - Welding Procedure Specifications** Do the tank welding specifications require the erection/fabrication manufacturer to prepare welding procedure specifications that comply with ASME BPVC code section IX (and any additional provisions of API 650)? (TDC.650WELDING.PROCEDURES.P) 195.214 (195.132(b)(3);API 650, Section 9.2.1;API 650, Section 7.2.1.10;API 650, Section 5.1.5.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Welding - Welding Procedure Specifications** Do records indicate the tank erection/fabrication manufacturer prepared welding procedure specifications that comply with ASME code section IX (and any additional provisions of API 650)? (TDC.650WELDING.PROCEDURES.R) 195.214(b) (195.132(b)(3);API 650, Section 9.2.1;API 650, Section 7.2.1.10;API 650, Section 5.1.5.2;API 650, Appendix W.1.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Welding - Welding Procedure Specifications** Do field observations indicate the tank erection/fabrication manufacturer followed the welding procedure specifications (WPS)? (TDC.650WELDING.PROCEDURES.O) 195.214(a) (195.214(b);195.132(b)(3);API 650, Section 9.2.1;API 650, Section 7.2.1.10;API 650, Section 5.1.5.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Welding - Interpretation of Weld Inspections** Do the operator's procedures require the proper interpretation of each weld inspection, under 195.234(c), to ensure the acceptability of each weld under 195.228? (TDC.650WELDING.INTERPRETATION.P) 195.234(c) (195.228;195.132(b)(3)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Welding - Qualification of Welders** Do the tank welding specifications require each welder to be qualified for welding in accordance with Section IX of the ASME code and the welder qualification requirements of API 650, Section 9.3? (TDC.650WELDING.WELDERQUAL.P) 195.132(b)(3) (195.222;API 650, Section 9.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Welding - Qualification of Welders** Do records indicate each welder was qualified for welding in accordance with Section IX of the ASME code and the welder qualification requirements of API 650, Section 9.3? (TDC.650WELDING.WELDERQUAL.R) 195.132(b)(3) (195.222;API 650, Section 9.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Welding - Qualification of Welders** Is each welder observed in the field properly qualified for welding in accordance with Section IX of the ASME code and the welder qualification requirements of API 650, Section 9.3? (TDC.650WELDING.WELDERQUAL.O) 195.234(c) (195.222;195.132(b)(3);) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Welding - Welding Weather Conditions** Do field observations confirm operator took appropriate measures to accommodate welding during adverse weather condition and/or cold temperatures, and specifically prohibited welding on wetted surfaces and during high winds? (TDC.650WELDING.WELDINGWEATHER.O) 195.224 (195.132(b)(3);API 650, Section 7.2.1.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Welding - Radiographic Inspection of Shell Butt Welds** Do the operator's procedures require radiographic inspection of shell butt-welds and insertions plates (i.e., tombstones) to conform with API 650, Sections 8.1.2 and 5.7.8.11? (TDC.650WELDING.RADIOGRAPHIC.P) 195.234(b) (195.132(b)(3);API 650, Section 8.1.1;API 650, Section 8.1.2;API 650, Section 5.7.8.11;API 650, Section 9.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Welding - Radiographic Inspection of Shell Butt Welds** Do records indicate radiographic inspection was conducted on required shell butt-welds, annular-plate butt-welds, and flush-type connections with butt-welds? (TDC.650WELDING.RADIOGRAPHIC.R) 195.234(b) (195.132(b)(3);API 650, Section 8.1.1;API 650, Section 8.1.2;API 650, Section 5.7.8.11;API 650, Section 9.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Welding - Non-Destructive Testing Personnel Certification** Do records indicate all Non-Destructive Testing (NDT) personnel are qualified and certified by the manufacturer as meeting the required certification and/or API 650 requirements? (TDC.650WELDING.NDTEXAMINER.R) 195.234(b) (195.132(b)(3);API 650, Section 8.1.3.2;API 650, Section 8.2.3;API 650, Section 8.3.2.4;API 650, Section 8.4.3;API 650, Section 8.5.1;API 650, Section 8.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Welding - Non-Destructive Testing Personnel Certification** Do field observations indicate all Non-Destructive Testing (NDT) personnel are qualified and certified by the manufacturer as meeting the required certification and/or API 650 requirements? (TDC.650WELDING.NDTEXAMINER.O) 195.234(b) (195.132(b)(3);API 650, Section 8.1.3.2;API 650, Section 8.2.3;API 650, Section 8.3.2.4;API 650, Section 8.4.3;API 650, Section 8.5.1;API 650, Section 8.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Welding - Repair of Defective Welds** Do the welding specifications provide criteria for weld acceptability and weld defects that must be removed and repaired? (TDC.650WELDING.ACCEPTREPAIR.P) 195.132(b)(3) (195.230;API 650, Section 7.4;API 650, Section 8.1.7;API 650, Section 8.5.2;API 650, Section 8.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Welding - Repair of Defective Welds** Do records indicate the criteria for weld acceptability and weld defects that must be removed and repaired were followed? (TDC.650WELDING.ACCEPTREPAIR.R) 195.132(b)(3) (195.230;API 650, Section 7.4;API 650, Section 8.1.7;API 650, Section 8.5.2;API 650, Section 8.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Welding - Repair of Defective Welds** Do field observations of welding NDE match the criteria for weld acceptability and weld defects that must be removed and repaired? (TDC.650WELDING.ACCEPTREPAIR.O) 195.132(b)(3) (195.230;API 650, Section 7.4;API 650, Section 8.1.7;API 650, Section 8.5.2;API 650, Section 8.5.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Welding - Removal of Tack Welds** Do field observations of vertical shell joints welding confirm tack welds were removed from the finished joints? (TDC.650WELDING.TACKWELDS.O) 195.132(b)(3) (API 650, Section 7.2.1.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Welding - Spot Radiographic Inspection** Do records indicate tank shell spot radiographic inspection on a per tank basis was conducted in accordance with the radiographic specifications? (TDC.650WELDING.SPOTRADIOGRAPHS.R) 195.132(b)(3) (API 650, Section 8.1.2.2;API 650, Section 8.1.2.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **18. Welding - Butt Welding Misalignment Limits** Do field observations confirm plate misalignment for plates to be joined by butt welding was within the specified limits? (TDC.650WELDING.MISALIGNMENT.O) 195.132(b)(3) (API 650, Section 7.2.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **19. Welding - Shell Vertical Joints Alignment** Do field observations confirm shell vertical joints conform with API 650, Section 5.1.5.2(a) and (b) and Figure 5-1? (TDC.650WELDING.VERTICALJOINTS.O) 195.132(b)(3) (API 650, Section 5.1.5.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **20. Welding - Shell-to-Bottom Welds Examination** Do field observations confirm the initial weld pass on the shell-to-bottom weld was examined for its entire circumference, both visually and using one of the approved methods in API 650, Section 7.2.4.1? (TDC.650WELDING.SHELL2BOTTOMEXAM.O) 195.132(b)(3) (API 650, Section 7.2.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **21. Welding - Shell Reinforcing Plate** Do field observations confirm reinforcing plates were being tested to 15 psig pneumatic pressure between the tank shell and the reinforcing plate? (TDC.650WELDING.SHELLREINFORCEPLATE.O) 195.132(b)(3) (API 650, Section 7.3.4) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Appurtenances & Nozzles**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Appurtenances - Roof Manholes and Nozzles** Do field observations confirm roof manholes and roof nozzles (flanged and threaded) conform to the design specifications? (TDC.650APPURT.ROOFOPENINGS.O) 195.132(b)(3) (API 650, Section 5.8.4;API 650, Section 5.8.5.6;API 650, Section 5.8.5.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Appurtenances - Shell Openings** Do field observations confirm shell openings, manholes, and reinforcements were installed in accordance with the design specifications? (TDC.650APPURT.SHELLOPENINGS.O) 195.132(b)(3) (API 650, Section 5.7.1;API 650, Section 5.7.2;API 650, Section 5.7.5.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Appurtenances - Shell Nozzles** Do field observations confirm that shell nozzles and flanges conform to the design specifications? (TDC.650APPURT.SHELLNOZZLES.O) 195.132(b)(3) (API 650, Section 5.7.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Appurtenances - Cleanout Fittings** Do field observations confirm cleanout fittings and flush-type shell connections conform to the design specifications? (TDC.650APPURT.CLEANOUT.O) 195.132(b)(3) (API 650, Section 5.7.7;API 650, Section 5.7.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Appurtenances - Shell Attachments** Do records (MTRs) indicate attachments made to shell courses using material in Group IV, IVA, V, or VI, conform to the design specifications? (TDC.650APPURT.SHELLATTACH.R) 195.132(b)(3) (API 650, Section 5.8.1.2) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Appurtenances - Tank CP Isolation Devices** Do field observations confirm CP isolation devices were installed at the required locations identified in the CP system design? (TDC.650APPURT.CPISOLATION.O) 195.565 (195.575;195.132(b)(3);API RP 651, Section 7.3.6) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New API 650 Tanks - Hydrostatic Testing**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Hydrotesting - New Tank Shell Hydrotesting** Does the process for new aboveground breakout tanks require hydrostatic leak testing of tanks in accordance with 195.307(c)? (TDC.650HYDRO.HYDROTEST.P) 195.307(c) (195.310(a);195.310(b);195.132(b)(3);API 650, Section 7.3.5;API 650, Section 7.3.6;API 650, Appendix L.3, Line 14) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Hydrotesting - New Tank Shell Hydrotesting** Do testing records indicate the new atmospheric aboveground breakout tank(s) hydrostatic leak testing was successfully conducted in accordance with 195.307(c)? (TDC.650HYDRO.HYDROTEST.R) 195.307(c) (195.310(a);195.310(b);195.132(b)(3);API 650, Section 7.3.5;API 650, Section 7.3.6;API 650, Appendix L.3, Line 14;API 650, Appendix W.1.5) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Hydrotesting - New Tank Shell Hydrotesting** Do field observations confirm atmospheric breakout tank hydrostatic leak testing was successfully conducted in accordance with 195.307 and the testing specifications? (TDC.650HYDRO.HYDROTEST.O) 195.307(c) (195.310(a);195.310(b);195.132(b)(3);API 650, Section 7.3.5;API 650, Section 7.3.6;API 650, Appendix L.3, Line 14) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Hydrotesting - Floating Roof (EFR/IFR) Floatation Test** Do field observations confirm the floating roof (internal or external) and its accessories operated without damage to the floating roof, the seal, and any tank appurtenances? (TDC.650HYDRO.FLOATINGROOF.O) 195.132(b)(3) (API 650, Appendix C.4.3;API 650, Appendix H.4.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Hydrotesting - Annular Space Measured During Hydrotest** Do records indicate maximum and minimum annular spaces between the shell and the rim plate were measured and recorded before the initial flotation and at the maximum test fill height? (TDC.650HYDRO.ANNULARSPACE.R) 195.132(b)(3) (API 650, Section 7.3.6.7) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Hydrotesting - Manufacturer Certification of Tank Construction IAW API 650** Do records indicate the tank manufacturer certified the completed tank was successfully constructed in accordance with API 650 and attached a nameplate to the tank shell? (TDC.650HYDRO.TANKCERTIFIC.R) 195.132(b)(3) (API 650, Section 10.1;API 650, Section 10.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Hydrotesting - Manufacturer Certification of Tank Construction IAW API 650** Do observations confirm the certification nameplate was attached to the tank shell? (TDC.650HYDRO.TANKCERTIFIC.O) 195.132(b)(3) (API 650, Section 10.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Tank Design and Construction - New Tank Piping - Construction**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Pipe Internal Design Pressure** Does the process require the internal design pressure of the pipeline (or pipe) be determined in accordance with 195.106? (DC.DN.DESIGNPRESS.P) 195.106(a) (195.106(b);195.106(c);195.106(d);195.106(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Pipe Internal Design Pressure** Do records demonstrate the internal design pressure of the pipeline (or pipe) is determined in accordance with 195.106? (DC.DN.DESIGNPRESS.R) 195.106(a) (195.106(b);195.106(c);195.106(d);195.106(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Breakout Tank Piping - Handling Corrosive Fluids** Does the design process take into account fluid corrosive properties for internal corrosion of tank related piping as required by 195.579(a)? (TDC.TKPIPING.CORRFLUIDS.P) 195.579(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Breakout Tank Piping - Handling Corrosive Fluids** Do records indicate breakout tank piping design accounted for fluid corrosive properties for internal corrosion as required by 195.579(a)? (TDC.TKPIPING.CORRFLUIDS.R) 195.579(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Breakout Tank Piping - Handling Corrosive Fluids** Do field observations confirm breakout tank piping accounted for fluid corrosive properties for internal corrosion as required by 195.579(a)? (TDC.TKPIPING.CORRFLUIDS.O) 195.579(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Breakout Tank Piping - Pressure Testing** Where tank piping and/or manifolds are installed in association with new breakout tank construction, does the process require pressure testing of all piping, fittings, and components in accordance with 195.302, 195.304, and 195.305? (TDC.TKPIPING.TANKPIPINGTEST.P) 195.302(a) (195.304;195.305(a);195.306(a);195.306(b);195.306(c);195.306(d);195.305(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Breakout Tank Piping - Pressure Testing** Where tank piping and/or manifolds are installed in association with new breakout tank construction, do records indicate all piping, fittings, and components were pressure tested in accordance with 195.302, 195.304, and 195.305? (TDC.TKPIPING.TANKPIPINGTEST.R) 195.302(a) (195.304;195.305(a);195.306(a);195.306(b);195.306(c);195.306(d);195.305(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Breakout Tank Piping - Pressure Testing** Do field observations of tank piping and/or manifolds pressure testing confirm that all piping, fittings, and components were pressure tested in accordance with 195.302, 195.304, and 195.305? (TDC.TKPIPING.TANKPIPINGTEST.O) 195.302(a) (195.304;195.305(a);195.306(a);195.306(b);195.306(c);195.306(d);195.305(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Breakout Tank Piping - Pressure Testing of Piping Tie-Ins** Does the process require testing of pipe associated with tie-ins, either with the section to be tied in or separately? (TDC.TKPIPING.PRESSTESTTIEIN.P) 195.308 (195.402(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Breakout Tank Piping - Pressure Testing of Piping Tie-Ins** Do records indicate pipe associated with tie-ins has been pressure tested? (TDC.TKPIPING.PRESSTESTTIEIN.R) 195.308 (195.310(a);195.310(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Breakout Tanks - Installation & Testing of Piping Protective Devices Prior to Service** Does the process require the installation and initial testing of tank piping pressure limiting devices, relief valves, pressure regulators, or other items of pressure control prior to place the aboveground breakout tank into service? (TDC.TKPIPING.PROTDEVICETEST.P) 195.428(a) (195.402(c)(3)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Breakout Tanks - Installation & Testing of Piping Protective Devices Prior to Service** Do records indicate tank piping pressure limiting devices, relief valves, pressure regulators, or other items of pressure control were installed and tested prior to placing the aboveground breakout tank into service? (TDC.TKPIPING.PROTDEVICETEST.R) 195.428(a) (195.404(c)(3)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Breakout Tanks - Installation & Testing of Piping Protective Devices Prior to Service** Do field observations confirm tank piping pressure limiting devices, relief valves, pressure regulators, or other items of pressure control were installed and tested prior to placing the aboveground breakout tank into service? (TDC.TKPIPING.PROTDEVICETEST.O) 195.428(a) (195.402(c)(3)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Facilities and Storage - Tanks and Storage - Inspection**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Breakout Tank Inspection - Non-Standard Tanks In-Service** For breakout tanks not being inspected to API 653 or API 510, does the process describe the interval and method for performing tank inspections? (FS.TANKS.NONSTDINSP.P) 195.402(c)(3) (195.432(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Breakout Tank Inspection - Non-Standard Tanks In-Service** For breakout tanks not being inspected to API 653 or API 510, do the records verify the interval and method used for performing tank inspections? (FS.TANKS.NONSTDINSP.R) 195.404(c)(3) (195.432(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Breakout Tank Inspection - Monthly** Does the process describe the interval and method for performing routine in-service inspections (monthly) of steel atmospheric or low pressure breakout tanks? (FS.TANKS.INSRVCINSP.P) 195.402(c)(3) (195.432(b);API 653, Section 6.3.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Breakout Tank Inspection - Monthly** Do records document that steel atmospheric or low pressure breakout tanks have received monthly in-service inspections and that deficiencies found during inspections have been documented? (FS.TANKS.INSRVCINSP.R) 195.432(b) (195.404(c)(3);API 653, Section 6.3.1) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Breakout Tank Inspection - External In-Service** Does the process describe the interval and method for performing external in-service inspections of breakout tanks that are steel (atmospheric or low pressure) tanks? (FS.TANKS.EXTRNLINSP.P) 195.402(c)(3) (195.432(b))  *Note: Does the process specifically address the inspection and maintenance of mixer seals?* | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Breakout Tank Inspection - External In-Service** Do records document that steel atmospheric or low pressure breakout tanks have received API 653 external inspections at the required intervals and that deficiencies documented during inspections have been corrected within a reasonable time frame? (FS.TANKS.EXTRNLINSP.R) 195.432(b) (195.404(c)(3);API 653 section 6.3.2)  *Note: Do the records specifically address the inspection and/or maintenance of mixer seals?* | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Breakout Tank Inspection - External UT** Does the process describe the interval and method for performing external, ultrasonic shell thickness inspections of breakout tanks that are steel (atmospheric or low pressure) tanks in accordance with API 653, Section 6.3.3? (FS.TANKS.EXTRNLINSPUT.P) 195.402(c)(3) (195.432(b);API 653 Section 6.3.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Breakout Tank Inspection - External UT** Do records document that steel atmospheric or low pressure breakout tanks have received ultrasonic shell thickness inspections, in accordance with API 653, at the required intervals and that deficiencies found during inspections have been documented? (FS.TANKS.EXTRNLINSPUT.R) 195.432(b) (195.404(c)(3);API 653, Section 6.3.3) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Breakout Tank Inspection - Internal (Out of Service)** Does the process describe the interval and method for performing internal (out of service) inspections of breakout tanks that are steel (atmospheric or low pressure) tanks in accordance with API 653, Section 6.4? (FS.TANKS.INTINSPOOS.P) 195.402(c)(3) (195.432(b))  *Note: Does the process specifically address the inspection and maintenance of mixer seals?* | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Breakout Tank Inspection - Internal (Out of Service)** Do records document that steel atmospheric or low pressure breakout tanks have received formal internal inspections, in accordance with API 653, at the required intervals and that deficiencies found during inspections have been documented? (FS.TANKS.INTINSPOOS.R) 195.404(c)(3) (195.432(b))  *Note: Do the records specifically address the inspection and/or maintenance of mixer seals?* | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Breakout Tank Inspection - Records (Sect. 6.8)** Does the operator’s process require that all tank construction records, inspection history and repair/alteration history is maintained for the life of the tank? (FS.TANKS.INSPRECORDS.P) 195.402(c)(3) (195.432(b);API 653 Section 6.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Breakout Tank Inspection - Records (Sect. 6.8)** Does the operator have all of the construction records, inspection history, and repair/alteration history associated with each breakout tank? (FS.TANKS.INSPRECORDS.R) 195.432(b) (195.404(c)(3);API 653, Section 6.8) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Breakout Tank Inspection - Reports (Sect. 6.9)** Does the operator’s process require that all Reports required by API 653 certified inspectors, the repair recommendations, and the disposition of the recommendations are to be maintained for the life of the tank? (FS.TANKS.INSPREPORTS.P) 195.402(c)(3) (195.432(b);API 653 Section 6.9) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Breakout Tank Inspection - Reports (Sect. 6.9)** Does the operator have all of the inspection reports, repair recommendations, and repair/alteration history associated with each breakout tank? (FS.TANKS.INSPREPORTS.R) 195.432(b) (195.404(c)(3);API 653, Section 6.9) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Breakout Tank Inspection - API 2510 External** For API 2510 pressure tanks, does the process describe the interval and method for performing external inspections of in-service pressure tanks built to API Standard 2510? (FS.TANKS.EXTINSP2510.P) 195.402(c)(3) (195.432(c);API 2510;API 510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Breakout Tank Inspection - API 2510 External** For API 2510 pressure tanks, do records document that in-service pressure tanks built to API Standard 2510 have received external inspections at the required intervals and that deficiencies found have been corrected? (FS.TANKS.EXTINSP2510.R) 195.404(c)(3) (195.432(c);API 2510;API 510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Breakout Tank Inspection - API 2510 Internal In-service** For API 2510 pressure tanks, does the process describe the interval and method for performing internal inspections in accordance with API 510? (FS.TANKS.INTINSP2510.P) 195.402(c)(3) (195.432(c);API 510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **18. Breakout Tank Inspection - API 2510 Internal In-service** For API 2510 pressure tanks, do records document that internal inspections were performed at the required intervals and that deficiencies found have been corrected in accordance with API 510? (FS.TANKS.INTINSP2510.R) 195.404(c)(3) (195.432(c);API 510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Facilities and Storage - Facilities General**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Facility Protection** Are facilities adequately protected from vandalism and unauthorized entry? (FS.FG.FACPROTECT.O) 195.436 | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Smoking/Open flames** Is there signage that prohibits smoking and open flames around pump stations, launchers and receivers, breakout tank areas, or other applicable facilities? (FS.FG.IGNITION.O) 195.438 | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Smoking/Open Flames** Do records show precautions taken to prevent ignition sources in areas with a potential for accumulating flammable vapors or leaking hazardous liquids? (FS.FG.IGNITION.R) 195.404(c) (195.438) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Signage** Are there operator signs around each pumping station, breakout tank area, and other applicable facilities? (FS.FG.SIGNAGE.O) 195.434 | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Signage** Does the process require operator signs to be posted around each pump station and breakout tank area? (FS.FG.SIGNAGE.P) 195.402(c)(3) (195.434) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Smoking/Open Flames** Does the process prohibit smoking and open flames in each pump station and breakout tank area, or where there is the possibility of the leakage of a flammable hazardous liquid or the presence of flammable vapors? (FS.FG.IGNITION.P) 195.402(c)(3) (195.438) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Facility Protection** Does the process require facilities to be protected from vandalism and unauthorized entry? (FS.FG.PROTECTION.P) 195.402(c)(3) (195.436) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Firefighting Equipment** Does the process require firefighting equipment at pump station/breakout tank areas? (FS.FG.FIREPROT.P) 195.402(c)(3) (195.430(a);195.430(b);195.430(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Firefighting Equipment** Are records of inspections of firefighting equipment adequate? (FS.FG.FIREPROT.R) 195.404(c)(3) (195.430(a);195.430(b);195.430(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Pump Station Fire Protection** Has adequate fire protection equipment been installed at pump station/breakout tank areas and is it maintained properly? (FS.FG.FIREPROT.O) 195.430(a) (195.430(b);195.430(c);195.262(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Pump Station Fire Protection** Has motive power, separate from pump station power, been provided for that fire protection equipment that incorporates pumps? (FS.FG.PSFIREPROTPWR.O) 195.262(e) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Facilities and Storage - Tanks and Storage**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Pressure Control Equipment and Overpressure Protection on Atmospheric or Low Pressure Tanks** Does the process require inspection and testing of pressure control equipment and overpressure protection on atmospheric or low pressure breakout tanks at intervals not exceeding 15 months, but at least once each calendar? (FS.TS.PRESSREGTEST.P) 195.402(c)(3) (195.428(a);API 2000) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Pressure Control Equipment and Overpressure Protection on Atmospheric or Low Pressure Tanks** Do the records verify the inspection and testing of pressure control equipment and overpressure protection on atmospheric or low pressure breakout tanks is performed at intervals not exceeding 15 months, but at least once each calendar? (FS.TS.PRESSREGTEST.R) 195.404(c)(3) (195.428(a);API 2000) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Testing HVL Breakout Tank Relief Valves** Does the process require inspection and testing of pressure relief valves on HVL pressure breakout tanks at intervals not exceeding five (5) years? (FS.TS.PRVTESTHVL.P) 195.402(c)(3) (195.428(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Testing HVL Breakout Tank Relief Valves** Do records document testing and inspection of relief valves on HVL pressure breakout tanks at intervals not exceeding five (5) years? (FS.TS.PRVTESTHVL.R) 195.404(c)(3) (195.428(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Testing HVL Breakout Tank Relief Valves** Do field observations of pressure relief valves on HVL pressure breakout tanks appear to be in satisfactory mechanical condition and to be functioning properly? (FS.TS.PRVTESTHVL.O) 195.428(b) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Tank Overfill Protection - Non-HVL Tanks** Does the process require adequate testing and inspection of overfill devices on aboveground breakout tanks at intervals not exceeding 15 months, but at least once each calendar year? (FS.TS.OVERFILL.P) 195.402(c)(3) (195.428(a);195.428(c);195.428(d);API 2350) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Tank Overfill Protection - Non-HVL Tanks** Do records confirm testing and inspection of overfill devices on non-HVL breakout tanks was performed at intervals not exceeding 15 months, but at least once each calendar year? (FS.TS.OVERFILL.R) 195.404(c)(3) (195.428(a);195.428(c);195.428(d);API 2350) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Tank Overfill Protection - HVL Tanks** Does the process require adequate testing and inspection of overfill devices on HVL pressure breakout tanks at intervals not to exceed 7-1⁄2 months, but at least twice each calendar year? (FS.TS.OVERFILLHVL.P) 195.402(c)(3) (195.428(a);195.428(c);195.428(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Tank Overfill Protection - HVL Tanks** Do the records confirm adequate testing and inspection of overfill devices on HVL pressure breakout tanks was performed at intervals not to exceed 7-1⁄2 months, but at least twice each calendar year? (FS.TS.OVERFILLHVL.R) 195.402(c)(3) (195.428(a);195.428(c);195.428(d);API 510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Tank Overfill Protection - HVL and Non-HVL Tanks** Do selected overfill protection systems on breakout tanks function properly and are they in good mechanical condition? (FS.TS.OVERFILL.O) 195.428(d) (195.428(c);API 2510) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Tank Condition Inspection - Observations** Do field observations indicate the condition of the breakout tank(s) is acceptable? (FS.TS.INSPECTIONS.O) 195.432 (195.401(b);API 653) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Protection Against Ignitions During O&M of Breakout Tanks** Does the process describe how the operator protects against ignitions arising out of static electricity, lightning, and stray currents during operation and maintenance activities of aboveground breakout tanks? (FS.TS.IGNITION.P) 195.402(c)(3) (195.405(a);API RP2003) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Protection against Ignitions during O&M of Breakout Tanks** Is there protection provided against ignitions arising out of static electricity, lightning, and stray currents during operation and maintenance activities of aboveground breakout tanks? (FS.TS.IGNITION.O) 195.405(a) (195.401(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Floating Roof Access/Egress Hazards** Does the access/egress process for floating roofs of in-service aboveground breakout tanks to perform inspection, service, maintenance or repair activities of in-service tanks indicate that the operator has reviewed and considered the potentially hazardous conditions, safety practices and procedures in API Publication 2026? (FS.TS.FLOATINGROOF.P) 195.402(c)(3) (195.405(b);API Publication 2026) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Floating Roof Access/Egress Hazards** Do records indicate access/egress onto floating roofs of in-service aboveground breakout tanks to perform inspection, service, maintenance, or repair activities of in-service tanks was performed consistent with API Publication 2026? (FS.TS.FLOATINGROOF.R) 195.404(c) (195.405(b);API Publication 2026) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Breakout Tank Impoundments** If a breakout tank first went into service after October 2, 2000 do records indicate operator has maintained adequate impoundment for each breakout tank? (FS.TS.IMPOUND.R) 195.404(c) (195.264(b);NFPA 30) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Breakout Tank Impoundments** If a breakout tank first went into service after October 2, 2000, does it have an adequate impoundment? (FS.TS.IMPOUND.O) 195.264(b) (NFPA 30) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **18. Breakout Tank Pressure Testing After Repair, Alteration** For all breakout tanks that have been repaired, altered, or reconstructed, have written test procedures been developed for testing? (FS.TS.REPAIRLEAKTEST.P) 195.402(c) (195.307;195.310(a);195.310(b);API 653) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **19. Breakout Tank Pressure Testing After Repair, Alteration** For all breakout tanks that have been repaired, altered, or reconstructed, do the records indicate the work was performed in accordance with the applicable standard for the tank type? (FS.TS.REPAIRLEAKTEST.R) 195.310(a) (195.310(b);195.307) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Maintenance and Operations - Liquid Pipeline Operations**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Normal Maintenance and Operations - History** Does the process address making construction records, maps, and operating history available as necessary for safe operation and maintenance? (MO.LO.OMHISTORY.P) 195.402(a) (195.402(c)(1);195.404(a);195.404(a)(1);195.404(a)(2);195.404(a)(3);195.404(a)(4);195.404(c)(1);195.404(c)(2);195.404(c)(3)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Normal Maintenance and Operations - History** Do records indicate current maps and records of the pipeline system are maintained and made available as necessary? (MO.LO.OMHISTORY.R) 195.404(a) (195.404(c);195.9;195.402(c)(1)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Time-Dependent Threats - Atmospheric Corrosion**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Atmospheric Corrosion Coating** Does the process give adequate instruction for the protection of pipeline against atmospheric corrosion? (TD.ATM.ATMCORRODECOAT.P) 195.402(c)(3) (195.581(a);195.581(b);195.581(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Atmospheric Corrosion Coating** Do records document adequate protection of pipeline against atmospheric corrosion? (TD.ATM.ATMCORRODECOAT.R) 195.589(c) (195.581(a);195.581(b);195.581(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Atmospheric Corrosion Monitoring** Does the process give adequate instruction for the inspection of aboveground pipeline segments exposed to the atmosphere? (TD.ATM.ATMCORRODEINSP.P) 195.402(c)(3) (195.583(a);195.583(b);195.583(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Atmospheric Corrosion Monitoring** Do records document inspection of aboveground pipe exposed to atmospheric corrosion? (TD.ATM.ATMCORRODEINSP.R) 195.589(c) (195.583(a);195.583(b);195.583(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Atmospheric Corrosion Monitoring** Is aboveground pipe that is exposed to atmospheric corrosion protected? (TD.ATM.ATMCORRODEINSP.O) 195.583(c) (195.581(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Time-Dependent Threats - External Corrosion - Breakout Tank Cathodic Protection**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **1. Cathodic Protection for Breakout Tanks** Does the process describe when cathodic protection must be installed on breakout tanks? (TD.CPBO.BO651.P) 195.402(c)(3) (195.563(d);195.565) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **2. Cathodic Protection for Breakout Tanks** Does the process adequately detail when and how cathodic protection systems will be inspected on breakout tanks? (TD.CPBO.BO.P) 195.402(c)(3) (195.573(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Cathodic Protection for Breakout Tanks** Do records adequately document when and how cathodic protection systems were inspected on breakout tanks? (TD.CPBO.BO.R) 195.589(c) (195.573(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Cathodic Protection for Breakout Tanks** Are cathodic protection monitoring tests performed correctly on breakout tank bottoms? (TD.CPBO.BO.O) 195.573(d) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Correction of Corrosion Control Deficiencies (Breakout Tank)** Does the process require correction of any identified deficiencies in corrosion control for breakout tanks? (TD.CPBO.DEFICIENCYBO.P) 195.402(c)(3) (195.573(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Correction of Corrosion Control Deficiencies (Breakout Tank)** Do records document adequate operator actions taken to correct any identified deficiencies in breakout tank corrosion control? (TD.CPBO.DEFICIENCYBO.R) 195.589(c) (195.573(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Cathodic Protection System Maps and Records (Breakout Tank)** Does the process require maps and/or records of cathodic protection systems that have been installed on breakout tanks constructed, relocated, replaced, or otherwise changed? (TD.CPBO.MAPRECORDBO.P) 195.589(a) (195.589(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Cathodic Protection System Maps and Records (Breakout Tank)** Do maps and or records document cathodic protection system appurtenances that have been installed on breakout tanks that have been constructed, relocated, replaced, or otherwise changed? (TD.CPBO.MAPRECORDBO.R) 195.589(a) (195.589(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Time-Dependent Threats - External Corrosion - Cathodic Protection**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Corrosion Control Qualification for Supervisors** Are supervisors required to maintain a thorough knowledge of corrosion control procedures they are responsible for, and is it verified? (TQ.QU.CORROSIONSUPERVISE.P) 195.402(c) (195.555;195.505(h)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Corrosion Control Qualification for Supervisors** Is qualification of supervisors in corrosion control procedures documented? (TQ.QU.CORROSIONSUPERVISE.R) 195.555 (195.507(a);195.507(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Cathodic Protection for New Pipelines** Does the process specify when cathodic protection must be operational on constructed, relocated, replaced, or otherwise changed pipelines? (TD.CP.NEWOPERATE.P) 195.402(c)(3) (195.563(a);195.563(c);195.563(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Cathodic Protection for New Pipelines** Do records document when cathodic protection was operational on constructed, relocated, replaced, converted to service, or otherwise changed pipelines? (TD.CP.NEWOPERATE.R) 195.589(c) (195.563(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. 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) 195.402(c)(3) (195.563(e);195.573(b)(1);195.573(b)(2)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Unprotected Buried Pipelines (typically bare pipelines)** Do records document the adequate re-evaluation of buried pipelines with no cathodic protection for areas of active corrosion? (TD.CP.UNPROTECT.R) 195.589(c) (195.573(b)(1);195.573(b)(2)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Isolation from Other Metallic Structures** Does the process provide 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.ISOLATE.P) 195.402(c)(3) (195.575(a);195.575(b);195.575(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Isolation from Other Metallic Structures** Do records document adequate 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.ISOLATE.R) 195.589(c) (195.575(a);195.575(b);195.575(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. 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.ISOLATE.O) 195.575(a) (195.575(b);195.575(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Inspection/Testing to Ensure Electrical Isolation** Does the process provide adequate guidance to inspect and electrically test to ensure that electrical isolation is adequate? (TD.CP.ISOLATETEST.P) 195.402(c)(3) (195.575(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Inspection/Testing to Ensure Electrical Isolation** Do records adequately document the inspection and electrical testing performed to ensure that electrical isolation is adequate? (TD.CP.ISOLATETEST.R) 195.589(c) (195.575(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Inspection/Testing to Ensure Electrical Isolation** Do field observations verify that inspection and electrical testing ensures that electrical isolation is adequate? (TD.CP.ISOLATETEST.O) 195.575(c) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **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) 195.402(c)(3) (195.575(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Protection from Fault Currents** Do records document adequate installation and inspection of fault current and lightning protection? (TD.CP.FAULTCURRENT.R) 195.589(c) (195.575(e)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Protection from Fault Currents** Are fault current and lightning protection for the pipeline installed and inspected? (TD.CP.FAULTCURRENT.O) 195.575(e) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Time-Dependent Threats - External Corrosion - Cathodic Protection Monitoring**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **3. Test Leads Installation** Does the process provide adequate instructions for the installation of test leads? (TD.CPMONITOR.TESTLEADINSTALL.P) 195.402(c) (195.567(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **4. Test Leads Installation** Do records document that pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart H? (TD.CPMONITOR.TESTLEADINSTALL.R) 195.589(c) (195.567(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **5. Test Leads Installation** Do pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart H? (TD.CPMONITOR.TESTLEADINSTALL.O) 195.567(a) (195.567(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **6. Test Leads Maintenance** Does the process require that test lead wires must be properly maintained? (TD.CPMONITOR.TESTLEADMAINT.P) 195.402(c)(3) (195.567(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **7. Test Leads Maintenance** Do records document that CP test lead wires have been properly maintained? (TD.CPMONITOR.TESTLEADMAINT.R) 195.589(c) (195.567(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **8. Test Leads Maintenance** Are CP test lead wires properly maintained? (TD.CPMONITOR.TESTLEADMAINT.O) 195.567(c) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **9. Cathodic Protection Monitoring Criteria** Does the process require that CP monitoring criteria be used that is acceptable? (TD.CPMONITOR.MONITORCRITERIA.P) 195.402(c)(3) (195.571) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **10. Cathodic Protection Monitoring Criteria** Do records document that CP monitoring criteria used was acceptable? (TD.CPMONITOR.MONITORCRITERIA.R) 195.589(c) (195.571) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **11. Cathodic Protection Monitoring Readings** Do the methods for taking CP monitoring readings allow for the application of appropriate CP monitoring criteria? (TD.CPMONITOR.MONITOR.O) 195.571 | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **12. Cathodic Protection Monitoring** Does the process adequately describe how to monitor CP that has been applied to pipelines? (TD.CPMONITOR.TEST.P) 195.402(c)(3) (195.573(a)(1)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **13. Cathodic Protection Monitoring** Do records adequately document required tests have been done on pipe that is cathodically protected? (TD.CPMONITOR.TEST.R) 195.589(c) (195.573(a)(1)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **14. Close Interval Surveys** Does the process adequately describe the circumstances in which a CIS or comparable technology is practicable and necessary no more than 2 years after a cathodic protection system has been installed? (TD.CPMONITOR.CIS.P) 195.402(c)(3) (195.573(a)(2)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Close Interval Surveys** Do records document, when circumstances dictated a need for close interval surveys, dates of completed surveys, data from completed surveys and analysis of completed surveys? (TD.CPMONITOR.CIS.R) 195.589(c) (195.573(a)(2)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Rectifiers, Bonds, Diodes and Reverse Current Switches** Does the process give sufficient details for making electrical checks of rectifiers, interference bonds, diodes, and reverse current switches? (TD.CPMONITOR.CURRENTTEST.P) 195.402(c)(3) (195.573(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **17. Rectifiers, Bonds, Diodes and Reverse Current Switches** Do records document adequate electrical checks of rectifiers, interference bonds, diodes, and reverse current switches and at the required intervals? (TD.CPMONITOR.CURRENTTEST.R) 195.589(c) (195.573(c)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **18. Rectifiers, Bonds, Diodes and Reverse Current Switches** Are rectifiers, interference bonds, diodes, and reverse current switches properly maintained and are they functioning properly? (TD.CPMONITOR.CURRENTTEST.O) 195.573(c) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **19. Interference Currents** Does the operator have a process in place to minimize detrimental effects of interference currents on its pipeline system and do the procedures 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) 195.402(c)(3) (195.577(a);195.577(b)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **20. Interference Currents** Do records document that the operator has an effective program in place to minimize the detrimental effects of interference currents on their pipeline system, and is minimizing detrimental effects of interference currents from their CP systems on other underground metallic structures? (TD.CPMONITOR.INTFRCURRENT.R) 195.589(c) (195.577(a)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **21. Interference Currents** Are areas of potential stray current identified, and if found, the detrimental effects of stray currents minimized? (TD.CPMONITOR.INTFRCURRENT.O) 195.577(a) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

**Time-Dependent Threats - Internal Corrosion - Preventive Measures**

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **15. Internal Corrosion Lining of Breakout Tanks** Does the process give adequate direction for installing breakout tank bottom linings? (TD.ICP.BOLINING.P) 195.402(c)(3) (195.579(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **16. Internal Corrosion Lining of Breakout Tanks** Do records document the adequate installation of breakout tank bottom linings? (TD.ICP.BOLINING.R) 195.589(c) (195.579(d)) | | | | | | | | | |  |  |  |  | | --- | --- | --- | --- | | No Issue | Potential Issue | Not Applicable | Not Checked | |  |  |  |  | | **Notes** | | | | |  | | | | |  |  |  |  |  |  |  | |  | | | | | | | | |

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