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**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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| **22. Breakout Tank Overfill Protection - SCADA** Do records indicate initial testing of applicable SCADA overfill protection systems for each new tank was conducted? (TDC.650REGS.OVERFILLSCADA.R)  |
| 195.446(c)(2) (195.428(d); API RP 2350)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| **23. Breakout Tank Overfill Protection - SCADA** Do field observations confirm initial testing was conducted for applicable SCADA overfill protection systems for each new tank? (TDC.650REGS.OVERFILLSCADA.O)  |
| 195.446(c)(2) (195.428(d); API RP 2350)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| **29. Breakout Tanks - Impoundment** Does the process for new aboveground breakout tanks require impoundment(s) to meet the impoundment requirements of 195.264 in the event of tank spillage or failure? (TDC.650REGS.IMPOUNDMENT.P)  |
| 195.264(a) (195.264(b); 195.264(c); 195.264(d); 195.264(e); NFPA 30)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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**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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| Notes |

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**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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| 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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| Notes |

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

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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| Notes |

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**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)  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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); )  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
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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)  |
|   |  |  |  |  |  |  |  |
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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)  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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**Tank Design and Construction - New API 650 Tanks - Appurtenances & Nozzles**

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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)  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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**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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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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)  |
|   |  |  |  |  |  |  |  |
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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)  |
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**Tank Design and Construction - New Tank Piping - Construction**

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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))  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
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| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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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))  |
|   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sat+ | Sat | Concern | Unsat | NA | NC |  |  |
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| Notes |

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