Breakout Tank Inspection - Design and New Construction

1. New Aboveground Breakout Tanks *Are new aboveground breakout tanks required to be designed and constructed to the specifications required by §195.132?* (DC.TSNEW.BOSPEC.P) (detail) 195.132(a) (195.132(b))

Notes
N/A no new tanks

Breakout Tank Inspection - Tank Repair

1. Repair, Alteration and Reconstruction of Aboveground Breakout Tanks that have Been in Service *Are breakout tanks required to be repaired, altered, or reconstructed in compliance with the requirements of §195.205?* (DC.TS.BOMODIFY.P) (detail) 195.205(a) (195.205(b))

Notes
SAT-Tank T1 (HVL tank- Butane) had first API 653 internal inspection by HTM 11/14. Minor repairs to floor from original construction-small dents. No corrosion-tank looked "new" inside after 40 years of service.

Breakout Tank Inspection - Protection

1. Breakout Tank Impoundment *Are new aboveground breakout tank impoundments, protection against entry, normal/emergency venting or pressure/vacuum reliefs required to comply with the requirements of §195.264?* (DC.TSNEW.BOIMPOUNDPROTECT.P) (detail) 195.202 (195.264(a); 195.264(b); 195.264(c); 195.264(d); 195.264(e))

Notes
n/a no new tanks or impoundments

Breakout Tank Inspection - Pressure Test

1. Pressure Testing - New Breakout Tanks *Have written test procedures been developed for testing new breakout tanks in accordance with §195.307?* (DC.PTBO.BOPRESSTEST.P) (detail) 195.202 (195.307(a); 195.307(b); 195.307(c); 195.307(e); 195.310; API Specification 12F; API 620; API 650)

Notes
N/a no new breakout tanks.

2. Breakout Tank Pressure Testing - Repairs, Alterations, and Reconstructions *Have written test procedures been developed for testing repaired, altered, or reconstructed breakout tanks that were returned to service after October 2, 2000?* (DC.PTBO.BOPRESSTESTMODIFY.P) (detail) 195.402(c) (195.307(d); 195.310(a); 195.310(b); API 653)

Notes
SAT-written test procedures have not been written, but MIP 601 states any additional procedures necessary will be per API 653 which does reference pressure testing.

Breakout Tank Inspection - Procedures

1. Normal Maintenance and Operations - History *Does the process include procedures for making construction records, maps, and operating history available as necessary for safe operation and maintenance?* (MO.LO.OMHISTORY.P) (detail) 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))

Notes
SAT documents are at terminal

2. 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.IGNITIONBO.P) (detail) 195.402(c)(3) (195.405(a))

Notes
SAT-tank shells is externally grounded. No floating roof to generate static electricity.

3. Floating Roof Access/Egress Hazards *Does the process associated with access/egress onto 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) (detail) 195.402(c)(3) (195.405(b))

Notes
n/a-no floating roof

4. 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) (detail) 195.402(a) (195.422(a); 195.402(c)(14))

Notes
SAT MIP 403 section 6.3

5. Breakout Tank Overfill Protection *Does the process require adequate testing and inspection of overfill devices on aboveground breakout tanks at the required interval? [Note: This question applies to both non-HVL and HVL pressure breakout tanks.]* (FS.TS.OVERFILLBO.P) (detail) 195.402(c)(3) (195.428(a); 195.428(c); 195.428(d))

Notes
SAT Facility Manual 4.13

6. Testing HVL Breakout Tank Reliefs *Does the process require inspection and testing of pressure relief valves on HVL pressure breakout tanks at the required frequency?* (FS.TS.PRVTESTHVLBO.P) (detail) 195.402(c)(3) (195.428(b))

Notes
SAT Facility Manual 4.13

7. Firefighting Equipment *Does the process require firefighting equipment at pump station/breakout tank areas?* (FS.FG.FIREPROT.P) (detail) 195.402(c)(3) (195.430(a); 195.430(b); 195.430(c))

Notes
SAT Facility Manual 2.6

8. Breakout Tank Inspection - In-service *Does the process describe the interval and method for performing routine in-service inspections of steel atmospheric or low pressure breakout tanks?* (FS.TSAPIINSPECT.BOINSRVCINSP.P) (detail) 195.402(c)(3) (195.432(b))

Notes
SAT-MIP 601-Monthly, annual, 5-yr 3rd party and 20 year 3rd party

9. Breakout Tank Inspection - External *Does the process describe the interval and method for performing external inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?* (FS.TSAPIINSPECT.BOEXTINSP.P) (detail) 195.402(c)(3) (195.432(b))

Notes
SAT-MIP 601-Monthly, annual, 5-yr 3rd party and 20 year 3rd party

10. Breakout Tank Inspection - External UT *Does the process describe the interval and method for performing external, ultrasonic thickness inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?* (FS.TSAPIINSPECT.BOEXTUTINSP.P) (detail) 195.402(c)(3) (195.432(b))

Notes
SAT-MIP 601-Section 5.3 5-yr 3rd party and 20 year 3rd party

11. Breakout Tank Inspection - Internal *Does the process describe the interval and method for performing formal internal inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?* (FS.TSAPIINSPECT.BOINTINSP.P) (detail) 195.402(c)(3) (195.432(b))

Notes
SAT
MIP 601 and 602-Section 5.3 5-yr 3rd party and 20 year 3rd party

12. Breakout Tank Inspection - External Visual *Does the process describe the interval and method for performing visual external inspections of in-service pressure steel aboveground breakout tanks built to API Standard 2510?* (FS.TSAPIINSPECT.BOEXTINSPAPI2510.P) (detail) 195.402(c)(3) (195.432(c))

Notes
SAT-MIP 601-Monthly, annual

13. Breakout Tank Inspection -Internal In-service *Does the process describe the interval and method for performing internal inspections of in-service pressure steel aboveground breakout tanks built to API Standard 2510?* (FS.TSAPIINSPECT.BOINTINSPAPI2510.P) (detail) 195.402(c)(3) (195.432(c))

Notes
SAT-MIP 601 and 602-Section 5.3 5-yr 3rd party and 20 year 3rd party

14. Signage *Does the process require operator signs to be posted around each pump station and breakout tank area?* (FS.FG.SIGNAGE.P) (detail) 195.402(c)(3) (195.434)

Notes
SAT Facility Manual 4.2 and MIP 202

15. Facility Protection *Does the process require facilities to be protected from vandalism and unauthorized entry?* (FS.FG.PROTECTION.P) (detail) 195.402(c)(3) (195.436)

Notes
SAT Facility Manual 4.2 and MIP 202

16. 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 of the presence of flammable vapors?* (FS.FG.IGNITION.P) (detail) 195.402(c)(3) (195.438)

Notes
SAT Facility Manual 4.12

Breakout Tank Inspection - Corrosion

1. Cathodic Protection for Breakout Tanks *Does the process describe when cathodic protection must be installed on breakout tanks?* (TD.CPBO.BO651.P) (detail) 195.402(c)(3) (195.565, 195.563(d))

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

2. Cathodic Protection for Breakout Tanks *Is cathodic protection on breakout tanks required to be installed in accordance with API RP 651?* (DC.TS.BOCP.P) (detail) 195.402(c)(3) (195.565; 195.563(d))

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

*** 3. Cathodic Protection Monitoring Criteria** *Does the process require that CP monitoring criteria be used that is acceptable?* (TD.CPMONITOR.MONITORCRITERIA.P) (detail) 195.402(c)(3) (195.571)

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

4. 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) (detail) 195.402(c)(3) (195.573(d))

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

5. Interference Currents *Does the process give sufficient guidance and detail for identifying and testing areas of potential stray current, and minimizing the detrimental effects of stray currents?* (TD.CPMONITOR.INTFRCURRENT.P) (detail) 195.402(c)(3) (195.577(a); 195.577(b))

Notes
n/a-no interference currents have been detected-checked during annual CP.

6. Installing Bottom Linings in Aboveground Breakout Tanks *Are bottom linings required to be installed in aboveground breakout tanks to meet the requirements specified in §195.579(d)?* (DC.TS.BOBOTTOM.P) (detail) 195.402(c) (195.579(d))

Notes
n/a-refined products in tanks-no water, no corrosion

7. Atmospheric Corrosion Coating *Does the process give adequate instruction for the protection of pipeline against atmospheric corrosion?* (TD.ATM.ATMCORRODECOAT.P) (detail) 195.402(c)(3) (195.581(a); 195.581(b); 195.581(c))

Notes
SAT-Facility Manual 2.3.4

8. Atmospheric Corrosion Monitoring *Does the process give adequate instruction for the inspection of aboveground pipeline segments exposed to the atmosphere?* (TD.ATM.ATMCORRODEINSP.P) (detail) 195.402(c)(3) (195.583(a); 195.583(b); 195.583(c))

Notes
SAT-Facility Manual 2.3.4

Breakout Tank Inspection - Field Review

1. Valve Accessibility *Are valves accessible to authorized employees and protected from damage or tampering?* (DC.CO.VALVEPROTECT.O) (detail) 195.258(a)

Notes
SAT

2. Valve Locations *Are valves located as specified by §195.260?* (DC.CO.VALVELOCATION.O) (detail) 195.260(a) (195.260(b); 195.260(c); 195.260(d); 195.260(e); 195.260(f))

Notes
SAT

3. Breakout Tank Impoundments *If a breakout tank first went into service after October 2, 2000 does it have an adequate impoundment?* (FS.TS.IMPOUNDBO.O) (detail) 195.264(b)

Notes
SAT

4. Breakout Tank Overfill Protection *Do selected overfill protection systems on aboveground breakout tanks that were constructed or significantly altered after October 2, 2000 function properly and are they in good mechanical condition? [Note: This question applies to both non-HVL and HVL pressure breakout tanks.]* (FS.TS.OVERFILLBO.O) (detail) 195.428(c)

Notes
SAT-tested high level alarm OK

5. 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) (detail) 195.430(a) (195.430(b); 195.430(c); 195.262(e))

Notes
SAT

6. Signage *Are there operator signs around each pumping station, breakout tank area, and other applicable facilities?* (FS.FG.SIGNAGE.O) (detail) 195.434

Notes
SAT

7. Facility Protection *Are facilities adequately protected from vandalism and unauthorized entry?* (FS.FG.FACPROTECT.O) (detail) 195.436

Notes
SAT

8. 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) (detail) 195.438

Notes
SAT-one designated smoking area outside the shop

9. Cathodic Protection for Breakout Tanks *Is cathodic protection on breakout tanks being installed in accordance with API RP 651?* (DC.TS.BOCP.O) (detail) 195.565 (195.563(d))

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

10. Cathodic Protection for Breakout Tanks *Are cathodic protection monitoring tests performed correctly on breakout tank bottoms?* (TD.CPBO.BO.O) (detail) 195.573(d)

Notes
n/a-these HVL tanks do not have CP: they have a heated bottom in a sand layer to prevent freezing from -40deg temp of liquefied HVL.

11. Atmospheric Corrosion Monitoring *Is aboveground pipe that is exposed to atmospheric corrosion protected?* (TD.ATM.ATMCORRODEINSP.O) (detail) 195.583© (195.581(a))

Notes
SAT

Breakout Tank Inspection – Records Review

1. New Aboveground Breakout Tanks *Do records indicate new aboveground breakout tanks designed and constructed to the specifications required by §195.132(b)?* (DC.TSNEW.BOSPEC.R) (detail) 195.132(b)

Notes
n/a-no new tanks

2. Repair, Alteration and Reconstruction of Aboveground Breakout Tanks that have Been in Service *Do records indicate breakout tanks repaired, altered, or reconstructed in compliance with the requirements of §195.205(b)?* (DC.TS.BOMODIFY.R) (detail) 195.266 (195.205(b))

Notes
SAT

3. Breakout Tank Impoundments *If a breakout tank first went into service after October 2, 2000 do records indicate it has an adequate impoundment?* (FS.TS.IMPOUNDBO.R) (detail) 195.404© (195.264(b))

Notes
n/a-tanks went into service prior to Oct 2, 2000

4. Breakout Tank Venting *Do records indicate that normal/emergency relief venting and pressure/vacuum-relieving devices installed on aboveground breakout tanks after October 2, 2000 are adequate?* (FS.TS.VENTBO.R) (detail) 195.404© (195.264(d))

Notes
SAT

5. Breakout Tank Pressure Testing *Have aboveground breakout tanks been pressure tested to their corresponding API or ASME Standard or Specification and do pressure test records contain the required information?* (FS.TS.PRESSTESTBO.R) (detail) 195.310(a) (195.310(b); 195.307)

Notes
SAT

6. Normal Maintenance and Operations – History *Do records indicate current maps and records of its pipeline systems are maintained and made available as necessary?* (MO.LO.OMHISTORY.R) (detail) 195.404(a) (195.404(b); 195.404(c); 195.9; 195.402(c)(1))

Notes
SAT

7. Protection Against Ignitions During O&M of Breakout Tanks *Do records indicate protection against ignitions arising out of static electricity, lightning, and stray currents during operation and maintenance activities of aboveground breakout tanks?* (FS.TS.IGNITIONBO.R) (detail) 195.404© (195.405(a))

Notes
SAT-tank shells are grounded

8. 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 is performed consistent with API Publication 2026?* (FS.TS.FLOATINGROOF.R) (detail) 195.404© (195.405(b))

Notes
n/a-no floating roof

9. Testing HVL Breakout Tank Reliefs *Do records document testing and inspection of relief valves on HVL pressure breakout tanks at the required frequency?* (FS.TS.PRVTESTHVLBO.R) (detail) 195.404(c)(3) (195.428(b))

Notes
SAT

10. Breakout Tank Overfill Protection *Do records document the inspection and testing of overfill protection devices on aboveground breakout tanks at the required interval? [Note: This question applies to both non-HVL and HVL pressure breakout tanks.]* (FS.TS.OVERFILLBO.R) (detail) 195.404(c)(3) (195.428(a); 195.428(c); 195.428(d))

Notes
SAT

11. Breakout Tank Inspection *Do records document that breakout tanks that are not steel atmospheric or low pressure tanks or HVL steel tanks built according to API 2510 have been inspected at the proper interval and that deficiencies found during inspections have been corrected?* (FS.TSAPIINSPECT.BOINSPECTION.R) (detail) 195.404(c)(3) (195.432(a))

Notes
n/a-tanks are API 620, low pressure tanks.

12. Breakout Tank Inspection - In-service *Do records document that steel atmospheric or low pressure breakout tanks have received routine in-service inspections at the required intervals and that deficiencies found during inspections have been documented?* (FS.TSAPIINSPECT.BOINSRVCINSP.R) (detail) 195.404(c)(3) (195.432(b))

Notes
SAT

13. Breakout Tank Inspection - External *Do records document that steel atmospheric or low pressure breakout tanks have received external inspections at the required intervals and that deficiencies documented during inspections have been corrected within a reasonable time frame?* (FS.TSAPIINSPECT.BOEXTINSP.R) (detail) 195.404(c)(3) (195.432(b))

Notes
SAT

14. Breakout Tank Inspection - External UT *Do records document that steel atmospheric or low pressure breakout tanks have received ultrasonic thickness inspections at the required intervals and that deficiencies found during inspections have been documented?* (FS.TSAPIINSPECT.BOEXTUTINSP.R) (detail) 195.404(c)(3) (195.432(b))

Notes
SAT-T1 and T2-HMT 8/4/14 no action required.

15. Breakout Tank Inspection - Internal *Do records document that steel atmospheric or low pressure breakout tanks have received formal internal inspections at the required intervals and that deficiencies found during inspections have been documented?* (FS.TSAPIINSPECT.BOINTINSP.R) (detail) 195.404(c)(3) (195.432(b))

Notes
SAT

T-1 just underwent first internal 653 inspection 11/14 after 40 years of service. T2 is scheduled for first internal in 2016, although AltaGas is going to request putting this off until 2017 based on T1 internal inspection results and findings.

16. Breakout Tank Inspection - External Visual *Do records document that in-service pressure steel aboveground breakout tanks built to API Standard 2510 have received visual external inspections at the required intervals and that deficiencies found have been corrected?* (FS.TSAPIINSPECT.BOEXTINSPAPI2510.R) (detail) 195.404(c)(3) (195.432(c))

Notes
n/a-tanks are API 620

17. Breakout Tank Inspection -Internal In-service *Do records document that in-service pressure steel aboveground breakout tanks built to API Standard 2510 received internal inspections at the required intervals and that deficiencies found have been corrected?* (FS.TSAPIINSPECT.BOINTINSPAPI2510.R) (detail) 195.404(c)(3) (195.432(c))

Notes
n/a-tanks are API 620

18. Cathodic Protection for Breakout Tanks *Do records document adequate cathodic protection system inspections on breakout tanks?* (TD.CPBO.BO.R) (detail) 195.589(c) (195.573(d))

Notes
n/a-no CP on tank bottom

19. Internal Corrosion Lining of Breakout Tanks *Do records document the adequate installation of breakout tank bottom linings?* (TD.ICP.BOLINING.R) (detail) 195.589(c) (195.579(d))

Notes
n/a-no internal lining

20. Atmospheric Corrosion Monitoring *Do records document inspection of aboveground pipe exposed to atmospheric corrosion?* (TD.ATM.ATMCORRODEINSP.R) (detail) 195.589(c) (195.583(a); 195.583(b); 195.583(c))

Notes
SAT

21. Cathodic Protection System Maps and Records *Do maps and or records document cathodic protection system appurtenances that have been installed on pipelines that have been constructed, relocated, replaced, or otherwise changed or been converted to hazardous liquid service?* (TD.CP.MAPRECORD.R) (detail) 195.589(a) (195.589(b))

Notes
SAT