

SAMPLE CHECKLIST FOR HIGHWAY TANK FACILITY AUDITS

NOTE: Information in square parentheses indicates B620 referenced requirement.

1) Facility Data

Company Name		
Address		
Contact Names		
Name	Title	Telephone
Name	Title	Telephone
Name	Title	Telephone

2) Personnel Details

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tank Inspector Check for each having minimum 5 years exp. (equivalent) In maintenance of tanks involved.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tank Testers Check for each having minimum 1 year exp. (equivalent) in maintenance of tanks involved.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Welder Check for each having ASME/Provincial certificate (PV tanks) or qualification by facility in conformance with requirements of ASME/Province (non PV)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Design Engineer Check for registration with Transport Canada
Comments			

3) Office Details

a) Certificate of Registration

OK	A/R	N/A	Item
			TC registration number _____ Expiry date _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Certificate posted and valid
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Functions performed and tank types agree with those on the certificate, Including mobile work.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Certificate information agrees with ASDD database report (to be provided by ASDD)
<u>List discrepancies</u>			

b) Test/Inspection Procedures & Checklists

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Written procedures and checklists available to tank testers and inspectors
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current version of CSA B620 available
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Instrumentation calibration records available
			Estimated number of B620 tests and inspections Done to date _____
			From(Y/M) _____ To(Y/M) _____
			Estimated ratio of passes to failures
			Pass _____ Fail _____
			Duration of typical inspection _____ hrs <input type="checkbox"/> V <input type="checkbox"/> I <input type="checkbox"/> K <input type="checkbox"/> P
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Subsequent action procedure in place when a test or inspection is failed
Comments			

c) Test and inspection reports on file

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reports available for review
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Information includes mandatory requirements (check that correct entries are Filled in)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Information complete
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reports indicate that procedures witnessed are consistent with actual practice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Records of defects found and corrective action taken
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Records of retest after repairs, where applicable
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Welding inspection reports provided, where required
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reports of periodic tests are retained by tank owner until next periodic test is Due
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reports of leak and pressure tests done on new tanks are maintained for twenty years
Comments			

4) Witnessing a Test and Inspection

a) Tank Data

Unit number	Specification	Design/MAWP Pressure
Owner's tank serial number	Manufacturer's serial number	
<input type="checkbox"/> Insulated and jacketed	<input type="checkbox"/> Lined	<input type="checkbox"/> Manhole
<input type="checkbox"/> Copy of name plate data attached to this report (handwritten/photocopied/photo)		

b) Tank owner data

Name	Address	Telephone

c) Visual Inspection (External)

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect jacketing for dents, digs, scrapes, gouges, perforations, stains, or other defects or signs of damage to the inner vessel
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect entire area of head and shell for dents, gouges, bulges, corrosion, abrasion, cracks, or signs of leakage or other conditions that might render it unsafe for transport
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect entire length of every weld for cracks, defects, or signs of leakage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure devices for tightening manhole covers are operative, and covers are leak tight
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check all valves, vents, emergency devices, and remote closures for corrosion, distortion, damage, wear, and operability
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure that all required markings are legible
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect supporting structures, pads, bolsters, tie-downs, and protective devices for dents, distortion, cracks, signs of weakness and loose or missing fasteners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure accompanying or mounted hoses comply with inspection and marking requirements
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Voids: check unplugged, no residue or evidence of leakage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corroded or abraded areas are thickness tested
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All pressure relief devices are inspected for corrosion or damage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When lading is corrosive to PRV: re-closing pressure relief valves are replaced or tested
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gaskets on full opening rear head are inspected and replaced if cut, cracked, or split
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Internal self-closing valve and off truck emergency shut down system tested in accordance with clause
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Report is completed
			Comments – including defects and location

d) Hose testing

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect hose assemblies for; damage/loose coverings, kinks, flat spots, soft spots, bulges under pressure, worn couplings, deteriorated or missing serial or identification markings
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Any damaged hose is taken out of service
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test pressure the greater of 120% of the HAWP and 518 Kpa (75psi); except that CSA certified hoses be tested at not less than 225psi and gravity off load hoses tested at not less than 69 Kpa (10psi)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hoses that pass inspection are marked, by stamping an end fitting or a securely attached metal tag or washer, with the month and year of the test and inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A report is issued for the test/inspection which includes the: name and address of the facility, HAWP, serial number, date, nature of inspection/test
Comments			

e) Visual Inspection (internal)

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Lined, lining test is done
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect interior of head, shell, baffles, and bulkheads for dents, gouges, bulges, corrosion, abrasions, cracks, or signs of leakage or other conditions that might render it unsafe for transport
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect piping, valves and gaskets for damage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect every weld (especially bulkheads and baffles) for cracks, defects, or signs of leakage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corroded areas are thickness tested
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Report is completed
Comments			

f) Leakage test

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Venting devices set to relieve at less than test pressure are removed or rendered inoperative
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Product piping with all valves and accessories in place and operative – must be pressure tested in sequence
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test medium is normal lading of tank or less hazardous material with equal or lower viscosity
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test pressure not less than 80% design pressure or MAWP, whichever is the lesser
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test pressure maintained for 5 minutes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspect entire area of head, shell, and welds for leaks or deformation (if applicable, identify location of defects on tank in “Comments” below)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All leaks are repaired before the tank is marked
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Report is completed
Comments			

g) Pressure Testing – General

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adjacent compartments are empty and at atmospheric pressure
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All relief devices set to operate at or below test pressure are clamped, plugged or rendered inoperative
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All relief devices are returned to operating condition immediately after the test is completed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test pressure as required by table 7.3 of CSA B620 is held for 10 minutes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspection of all external surfaces reveals no defects, leakage, or deformation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All re-closing pressure relief devices are replaced or tested to ensure that they open at required set to discharge pressure and re-seated to a leak tight condition at not less than 90% of that pressure

Comments

h) Pressure Testing – Hydrostatic Test

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test medium viscosity similar to that of water at a temperature not exceeding 38° celcius
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tank or compartment including all domes is completely filled with water
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Suitable precautions taken to prevent over pressurization of the tank
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pressure is gauged at the top of the tank
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All piping and accessories pressure tested at not less than 80% of tank MAWP
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A report is completed by the tester
Comments			

i) Pressure Test – Pneumatic Test

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pneumatic testing performed only when there is no suspicion of weakness and where subsequent problems may arise due to the presence of water
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safeguards in place to protect personnel in the event of tank failure during testing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proper pressure established for tank type
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Suitable precautions taken to prevent over pressurization of the tank
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Entire surface under pressure is coated with a solution of soap and water, heavy oil, or other material suitable for the detection of leaks. Test pressure held for 10 mi and all external surfaces are inspected for evidence of leakage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where a less sensitive method is used, the holding time is increased to 1 hour
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All piping and accessories pressure tested at not less than 80% of tank MAWP

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prior to visual inspection, tank pressure is reduced to MAWP
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Report is completed
Comments:			

j) Verification of information collected on report [7.3.1]

OK	A/R	N/A	Item
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tank owner's name, address and telephone number
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name, organization and address of person / facility performing test and TDG registration number
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date of test, test medium and test pressure – Results
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Owner's and manufacturer's tank serial numbers
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tank specification
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type of test or inspection performed and list of items tested
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Statement that: No defects were found
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description of defects found including: location, nature, and severity. How those defects were discovered and the nature of repairs and results of subsequent testing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disposition of tank, such as; Repaired returned to service, or Tank scrapped
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Statement that tank is constructed of quenched and tempered steel or other than quenched and tempered steel
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Statement that the tank was stress relieved after manufacture
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Statement that the tank was stress relieved after repair
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name and signature of tank inspector or tester
Comments:			

k) Marking

April 19, 2013

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Note: this information is provided as a reference only. Please refer to the proper standard or regulation for detailed compliance requirements.

Marking complies with Section 8.4 of CSA B620-03

Yes No

5) General comments

6) Tank Inspectors and experience

Years Exp.	Name

7) Tank Testers and experience

Years Exp.	Name

8) Welder names

ASME Cert.	Facility Cert.	Name and certificate number
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

9) Design Engineer

TC – registration number	Name