PRESSURE TESTING SAFETY CHECKLIST

REFERENCE PTW NO.:

DEPARTMENT / PROJECT :	**LOCATION AND SYSTEM:**	**CONTRACTOR:**
TESTING SUPERVISOR/IN-CHARGE:	**SIGNATURE**	**BADGE No.:**
PROPONENT/PROJECT REP.:	**SIGNATURE:**	**POSITION/BADGE No.:**

SN	REQUIREMENTS	YES	NO	N/A	REMARKS
BEFORE START OF TEST					
1	Representatives from PMT / Contract Holder department are informed, have inspected the test equipment and are monitoring the testing.				
2	Scope of the activity discussed with all concerned/involved and performing employees.				
3	Approved JSA discussed with performing employees and available on site. TRC also conducted.				
4	Written and approved procedure available and contains the following minimum information among others: • Pressure test or hydrostatic test diagram • Test manifold arrangement • Location of blind flanges and isolation valves. • Location of check valves (*flappers to be removed, if necessary).* • Location of lowest rated component that determines test pressure. • Location of air vents. • Relief valve size and set pressure. • Vacuum valve size and set pressure. • Test medium and disposal method. • Test pressures • Test sequence.				

	• Minimum temperature allowed. • Inspection requirements. • Control of access to test area. • Location of barricades / warning signs and markings for test area. • Emergency arrangements. • Location of the filling point. • Listing of correct sequence and necessary torque of all blind flange bolts and verification of proper torque when bolting. • Use of properly rated gaskets as per manufacturer's specs *(e.g. quality, service use, pressure rating*).				
5	Is water the test medium? If not, is the use of other medium justified? Are precautions taken to prevent hazardous conditions? Are PPE available and used for protection against burning from hot water?				
6	Are their provision/procedure followed for selection and treatment of hydrostatic test water?				
7	Are appropriate test equipment used? The following are minimum requirements: (**Exceptions:** *Certain tests will not need all equipment listed, e.g. household utilities*) • Relief valve tested, tagged "TEST" with set pressure and date. • Relief valve has adequate capacity and proper set pressure. • No block valve in relief valve's outlet and inlet. (**Exception**: *Relief valve may be installed on existing valve connection if removal of the valve is not practical because of liquid in the system, but the valve must be sealed open during the test.)* • Relief valve located in system under test and near test pump or other test medium supply. • Two or more accurate and reliable pressure gauges of proper range calibrated within 30 days of the pressure test.				

	• Pressure gauges have block and bleed valves. • Pressure gauges are in proper locations. • Pressure gauges at the test pump or test medium supply can be read by the operator. • Blowdown valve on test piping. • Isolation valve on test piping. • Blowdown valve on system under test readily accessible and piped or draining to a designated location, drain or area. • Test piping pressure tested to at least 20 % above test pressure of the system under test. *(**Exception**: Final connection between test manifold and system under test may be tested to maximum system test pressure only if a higher test pressure is impractical.)*				
8	Is the test covered with approved Permit-to-Work?				
9	Are equipment not adequate for test pressures isolated?				
10	Are chemicals handled safely? MSDS available and understood? PPE used?				
10	Is temperature of the test medium above the temperature at which the impact requirements are met by the material to avoid brittle fracture?				
11	Are entries to the test site controlled? By any or more of the following means; *attendants at access points, barricades, warning signs, etc.*				
12	Test schedule coordinated with other disciplines / departments to avoid simultaneous/conflicting activities?				
DURING / AFTER TEST					
13	**In removing air before pressurizing (Liquid Test);** • Are high point vents open while system is filled at the				

	low point? • Are vents closed after air is removed from the system? (**Exception:** *Pipelines having air removed with scrapers are not vented and filled per the above.)*				
14	**In increasing the pressure;** • Is pressure increased gradually with at least 10-minute holds at each step in a strength test? • Are weaknesses repaired and leaks stopped before exceeding 50% of the strength. • test pressure for tests using liquid or *173 kPa (25 psig)/50%* of the strength test pressure, whichever is the smaller, for any tests using air or other gas as the test medium? • In strength tests using air or other gas, is the pressure increased in steps no greater than 1/10 of the strength test pressure after reaching 50% of the test pressure? • In strength tests using liquid, is the pressure increased in steps no greater than 1/5 of the test pressure after reaching 50% of the test pressure? • Are weaknesses repaired and leaks stopped before proceeding to any higher pressure?				
15	• Is pressure removed, except pressure due to head of liquid, before stopping leaks or repairing, including tightening of bolts? (**Exception:** *Bolts may be tightened in a tightness test if specifically approved*).				
16	**In restricting approach;** • Are vessels never previously tested or vessels with welds never previously tested are not to be approached during the step-wise increase in pressure? **Note:** *The pressure at which the system under test will be approached for close inspection shall be specified in the test procedure.* • Are personnel conducting test provided with a safe place from which to control / observe the progress of the test? Exclusion distances shall be reviewed by the PMT/Contract Holder for each individual test, and shall form part of the test procedure.				

	• Are only personnel involved with the test allowed near the system at any time during the test. • Is the test pump, if any, located such that the operator is safe in the event of a failure?				
17	**In depressurizing;** • Are the depressurizing valve and piping arranged for safe discharge? • Is the system not to be depressurized by loosening bolts or unscrewing fittings? Is depressurized at a slow rate to prevent damage? • Are heat exchangers monitored with pressure gauges if necessary to prevent excessive differential pressures?				
18	• Is the test medium disposed properly as per approved disposal procedure? *(reviewed / concurred by ELD).*				
19	**Other safety considerations;** • Is the temperature of the test medium allowed to equalize with the environment to the extent practical before pressurizing? • Is the test pump not left unattended during the test unless isolated with a valve? • Are temporary test piping not allowed to remain pressurized unnecessarily? • Is the system not allowed to remain unattended when filled with liquid unless a vent is open? • Is the test relief valve not removed until the test liquid has been drained? • Is the test liquid drained slowly with vents open to prevent a possible vacuum?				