PTW Safety Checklist No. 53

PRESSURE TESTING OF PLANT AND EQUIPMENT

Other Checklists that may be relevant:		18, 27, 54
Permit Number:		**Date:**
Rev 2.2	**Issue Date:** 10/10/2024	**Authorised By:** PSM

CAUTION:

1 **Ensure tested pipework and/or vessels have been completely depressured, including both sides of NRV's or valves.**
Prior to draining liquids, ensure high point vents are open to prevent vacuum.

PRIOR TO PERMIT ISSUE:

		Y	N	N/A
2	Before conducting Pressure tests refer to Piping Design, Fabrication and Inspection Standard.pdf Section 6:Testing	☐		
3	Equipment has been checked thoroughly and all components are in good condition, operating correctly and within certification.	☐		
4	Are there situations where excessive pressure due to thermal expansion could occur?	☐		☐
5	Ensure the pressure source has a relief valve set pressure, or a regulator set below the maximum design pressure of the system.	☐		
6	Test pressure has been specified in test procedure. Test Pressure: _____	☐		
7	List the test medium, and any additives. Piping Design, Fabrication and Inspection Standard.pdf section 6: Testing. Medium: _____Additives: _____	☐		
8	Check to ensure total gross weight of vessels and pipework, when filled with liquid, does not exceed maximum design specifications.	☐		☐
9	Use link to Hydrotest Excel calculator, open spreadsheet in desktop app. HYDROTEST SAFE DISTANCE CALCULATOR. URL Safe distance = (0.15) x(D)x(a)^0.4x(p)^0.6 where: • D = Internal diameter (m) • a = Length/diameter of the piece (m) • p = Test pressure (bar) Or use this link for Internet Pneumatic test: SAFE DISTANCE STORED ENERGY CALCULATOR or paste into web browser https://www.piping-world.com/safe-distance-and-stored-energy-calculator-pneumatic-test • On Calculator, scroll down web page for answer in blue field. Record Safe Distance for exclusion zone here: _____m.	☐		

PRIOR TO COMMENCING TASK:

		Y	N	N/A
10	The pipework is adequately anchored / supported.	☐		☐
11	Ensure that all attachments i.e., relief valves or instruments, excluded from the test have been removed and / or isolated as agreed by procedure.	☐		
12	All temporary materials are of the correct rating for the test, i.e., flanges, spades, gaskets etc.	☐		
13	Ensure that the test relief valve exhaust is routed to a safe location.	☐		☐
14	Signs and barriers are positioned at safe distance as per item 9 calculation to warn personnel of operations in area(s) as per Temporary Barriers and Barricades Standard Operating Procedure.pdf	☐		
15	Ensure all securing device i.e., back up jump chains, safety pins and whip checks are correctly attached across hose connections.	☐		☐

ON COMPLETION OF TASK:

		Y	N	N/A
16	Ensure System has been drained and is free from water contamination that could cause a hydrate.	☐		☐
17	Ensure testing medium is disposed of appropriately.	☐		☐
18	A 'line walk' has been conducted to ensure all equipment is reinstated as per procedure.	☐		☐