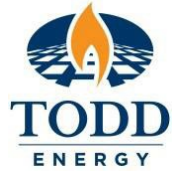


# PTW Safety Checklist No. 53



## PRESSURE TESTING OF PLANT AND EQUIPMENT

Other Checklists that may be relevant:		<a href="#">18</a> , <a href="#">27</a> , <a href="#">54</a>
Permit Number:		Date:
Rev 2.1	Issue Date: 12/12/2022	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 <a href="#">Piping Design, Fabrication and Inspection Standard.pdf</a> Section 6:Testing  | <input type="checkbox"/> |   |                          |
| 3 Equipment has been checked thoroughly and all components are in good condition, operating correctly and within certification.   | <input type="checkbox"/> |   |                          |
| 4 Are there situations where excessive pressure due to thermal expansion could occur?   | <input type="checkbox"/> |   | <input type="checkbox"/> |
| 5 Ensure the pressure source has a relief valve set pressure or a regulator set below the maximum design pressure of the system.  | <input type="checkbox"/> |   |                          |
| 6 Test pressure has been specified in test procedure<br>Test Pressure: _____  | <input type="checkbox"/> |   |                          |
| 7 List the test medium, and any additives. <a href="#">Piping Design, Fabrication and Inspection Standard.pdf</a> section 6:Testing<br><br>Medium: _____ Additives: _____   | <input type="checkbox"/> |   |                          |
| 8 Check to ensure total gross weight of vessels and pipework, when filled with liquid, does not exceed maximum design specifications.   | <input type="checkbox"/> |   | <input type="checkbox"/> |
| 9 Use link to Hydrotest Excel calculator, open spreadsheet in desktop app. <a href="#">HYDROTEST SAFE DISTANCE CALCULATOR. URL</a><br>Safe distance = $(0.15) \times (D) \times (a)^{0.4} \times (p)^{0.6}$ where: <ul style="list-style-type: none"> <li>• D = Internal diameter (m)</li> <li>• a = Length/diameter of the piece (m)</li> <li>• p = Test pressure (bar)</li> </ul> Or use this link for Internet Pneumatic test: <a href="#">SAFE DISTANCE STORED ENERGY CALCULATOR</a><br>or paste into web browser <a href="https://www.piping-world.com/safe-distance-and-stored-energy-calculator-pneumatic-test">https://www.piping-world.com/safe-distance-and-stored-energy-calculator-pneumatic-test</a> <ul style="list-style-type: none"> <li>• On Calculator, scroll down web page for answer in blue field</li> </ul> Record Safe Distance for exclusion zone here: _____m | <input type="checkbox"/> |   |                          |

**PRIOR TO COMMENCING TASK:**

	<b>Y</b>	<b>N</b>	<b>N/A</b>
10 The pipework is adequately anchored / supported.	<input type="checkbox"/>		<input type="checkbox"/>
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.	<input type="checkbox"/>		
12 All temporary materials are of the correct rating for the test, i.e., flanges, spades, gaskets etc.	<input type="checkbox"/>		
13 Ensure that the test relief valve exhaust is routed to a safe location.	<input type="checkbox"/>		<input type="checkbox"/>
14 Signs and barriers are positioned at safe distance as per item 8 calculation to warn personnel of operations in area(s) as per <a href="#">Temporary Barriers and Barricades Standard Operating Procedure.pdf</a>	<input type="checkbox"/>		
15 Ensure all securing device i.e., back up jump chains, safety pins and whip checks are correctly attached across hose connections.	<input type="checkbox"/>		<input type="checkbox"/>

**ON COMPLETION OF TASK:**

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