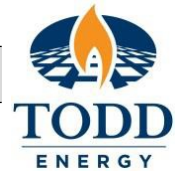


PTW Safety Checklist No. 16



BLASTING & PAINTING INCLUDING USE OF PORTABLE DIESEL & IC ENGINES, USE OF NON-CERTIFIED OR NON IS ELECTRICAL EQUIPMENT & STEEL WIRE BRUSHES & NEEDLE GUNS WHERE APPLICABLE

Other Checklists that may be relevant:		50
Permit Number:		Date:
Rev 2.2	Issue Date: 01/03/2021	Authorised By: PSM

Work under this permit will include the following operations (tick as applicable)

- Sandblasting, waterblasting, needle gunning, steel wire brushes, spray painting – Section ONE of this checklist to be completed for all Permits.
- Operation of portable diesel & IC engine – Section TWO of this checklist to be completed.
- Use of non-certified or non IS electrical equipment in hazardous area – Section THREE of this checklist to be completed.

NOTE: Sections 2 & 3 of this checklist are in addition to the checks required in Section 1 that applies to all parts of this permit activity.

SECTION ONE:

PRIOR TO PERMIT ISSUE:

		Y	N	N/A
1	All potentially affected instrumentation, safety trip devices, detectors, valve, pumps, motors and air intakes are to be protected from impact paint spray, water stray, grit and debris.	<input type="checkbox"/>		
2	Consider need to isolate or inhibit fire and gas detection and the implications of doing so. If required fill out Checklist 50 Working on, or Isolation of Emergency / Safety Systems Including IPF Checks.	<input type="checkbox"/>		
3	The work team is aware of and understands the contents of the SDS sheets for the material being used.	<input type="checkbox"/>		
4	Arrangements have been made to contain and regularly remove abrasives from the worksite (or suitably protected from the wind) to prevent it being blown into other process equipment including drains.	<input type="checkbox"/>		
5	If paint is known to contain hazardous material i.e. lead; precautions are in place for containing and disposal of the toxic material (as per SDS sheet).	<input type="checkbox"/>		<input type="checkbox"/>
6	Prior to removal of work on any wrap material consult the asbestos register if the presence of asbestos is suspected, all work shall cease, and a management plan confirmed with the HSE Department.	<input type="checkbox"/>		<input type="checkbox"/>

[Link to Sauce page for Health Hazards Management Registers](#)

Y N N/A

7 If the line / vessel is **hydrocarbon** duty and is not able to be isolated / depressured, then consider the following four bullet points and complete the table below:

- On line blasting of hydrocarbon piping should be avoided whenever there are other practical options.
- These requirements are for all forms of invasive blasting – HP water, grit, garnet, sponge blasting, walnut shell, ice etc. This is also applicable for needle gunning and wire buffing.
- These requirements are for all levels of blasting ('light' for further inspection and 'severe' for painting)
- For estimated wall loss >2.5mm, mechanical engineering approval is required and recorded below.

NOTE: For the purposes of this item 'hydrocarbon duty' means gas (incl. fuel gas & glycol) and condensate pipework but does not include diesel, vent and produced water line.

Scope defined using marked up P&IDs: _____

WO: _____

Location Number (to be marked on drawing)	1	2	3	4	5
Pipe Diameter (if applicable)					
Nominal Wall Thickness (A)					
Estimated Maximum External Wall Loss (B)*					
Remaining Wall Thickness: Estimated (= A - B) or Measured (e.g. 7.1, M)					
Safe to blast? (Y/N)					

Should more than 5 locations be identified for the one permit, an additional table may be added, but will require the same signatures as below:

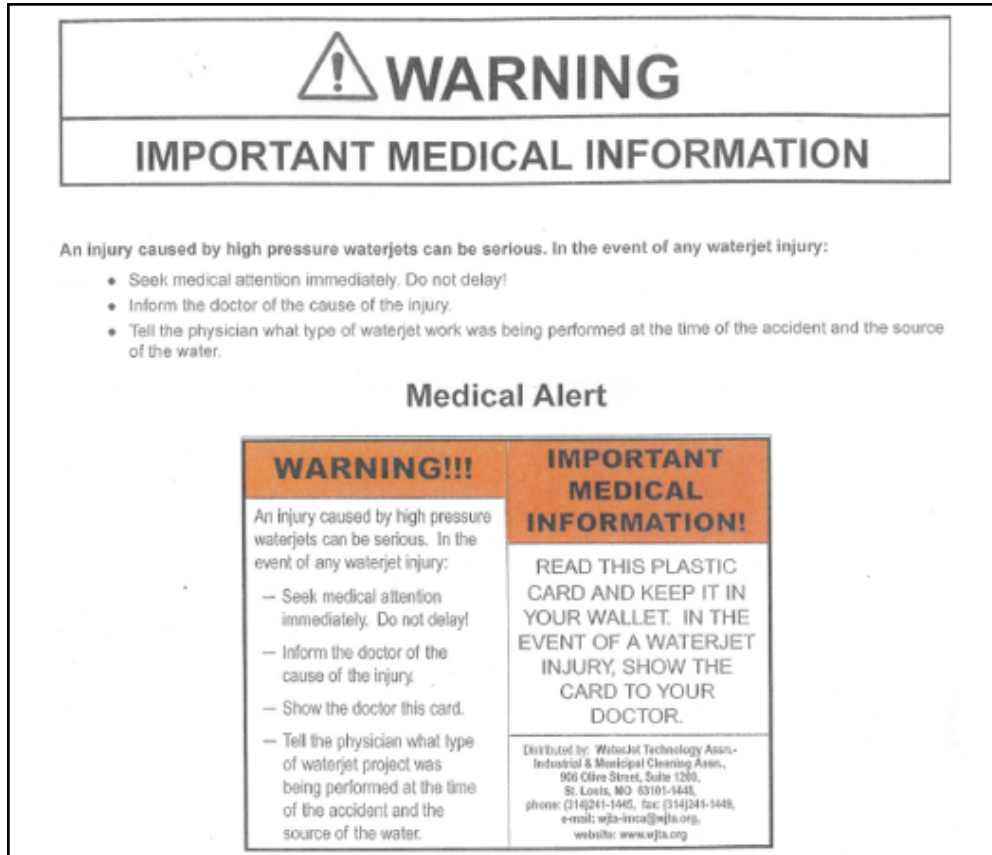
<p>**Assessor: _____ Signed: _____ Date: _____</p> <p>* For estimated maximum wall loss > 2.5 mm, Mechanical Engineering approval is required. For onshore facilities this approval can be recorded below.</p> <p>Engineer: _____ Signed: _____ Date: _____</p>
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**** The Site Painting Supervisor is deemed a competent person to make the assessment of external wall loss. If they are not comfortable in making the assessment or have any doubts about whether the condition satisfies the requirement as stated just above - then a Integrity Engineer, Coatings Inspector or Mechanical Engineer should be asked to make the assessment.**

8 Water blasting

- Does Water blasting involve pressures greater than 1,380 bar or 20,000 psi or Ultra High-Pressure water blasting?
- If Yes list names of persons operating UHP equipment

- Ensure UHP unit or UHP crew have medical alert cards in unit or on person in the event of medical event involving UHP
- Example of Medical Warning card below:



PRIOR TO COMMENCING TASK:

- 9 Hoses are in good condition and within current certification period.
- 10 Are fully extended whip checks in place across all flexible hose's connections?
- 11 Where a Ludecke coupling is connected directly into a pneumatic tool, it is done via an inline straight swivel (360°). Where a hose is connected directly into a pneumatic tool, it is done via a crimped dyna-swivel or similar universal joint. Refer [Hose Fittings and Clamps WI-EP72.03-002](#)
- 12 All equipment has been checked thoroughly, all components in good order and the 'dead mans' handle is functioning.

- | | | Y | N | N/A |
|----|--|--------------------------|---|--------------------------|
| 13 | External metal parts of the cleaning, blasting and spraying equipment are bonded together, and unit electrically bonded to earth. Continuity test results have been recorded on permit (<10Ω). | <input type="checkbox"/> | | |
| 14 | Barriers and signs have been erected to prohibit passage of other personnel within the work areas? | <input type="checkbox"/> | | |
| 15 | Shields and screens have been erected to protect passing personnel from stray grit and debris where necessary. | <input type="checkbox"/> | | <input type="checkbox"/> |
| 16 | If using air pressure to assist cleanup of sand and grit, a dead man device shall be fitted or observer placed at isolation valve. | <input type="checkbox"/> | | |
| 17 | List any additional eye protection and / or respiratory protection as agreed. | | | |
-

SECTION TWO:

The use of non-Hazardous area rated engines in Zone 2 Area will be allowed with the following controls in place: Initial and continuous gas testing, equipment is manned at all times while in operation.

The controls for use of non-zone rated engines in Non-Hazardous areas shall be determined by the site Permit Issuer on a case by case basis and documented by the Permit Applicant in the PTW Job Hazard Analysis.

PRIOR TO COMMENCING TASK:

- | | | Zone 2 | Non Haz |
|----|--|--------------------------|--------------------------|
| 18 | Indicate the area / zone the equipment is to be located in.
NOTE: This should be as far from the process as practical. | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Name the dedicated watchman who is standing by while the engine is running (if in Zone 2 area only):
Name: _____ | Y | N/A |
| 20 | A portable dry powder extinguisher is present at the engine site. | <input type="checkbox"/> | |
| 21 | Equipment has a current WOF / Certificate of Fitness as required. | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 | Equipment checked and found to be in good condition e.g. free from oil leaks | <input type="checkbox"/> | |

SECTION THREE:

PREPARATION:

- | | | Y | N | N/A |
|----|---|--------------------------|---|--------------------------|
| 23 | All electrical equipment checked and found to be in good condition with a current test tag. Note these tags must be fitted by a registered electrician. | <input type="checkbox"/> | | |
| 24 | An ELCB or RCD must be used. | <input type="checkbox"/> | | <input type="checkbox"/> |
| 25 | Cables run through a hazardous area are clearly identified as suitable for hazardous areas. | <input type="checkbox"/> | | <input type="checkbox"/> |
| 26 | Cables are adequately protected when external damage is possible e.g. crossing roadways. | <input type="checkbox"/> | | <input type="checkbox"/> |