



Pressure Vessel Inspection Checklist (Unfired)

28 Jun 2023 / Bernard F

Complete

Score	89.47%	Flagged items	4	Actions	0
Conducted on	28.06.2023 10:03 PST				
Prepared by	Bernard F				
Location	San Jose, CA 95135 United States (37.3084816473777, -121.6406824504114				

Flagged items

4 flagged

Inspection / External Inspection

External coverings such as insulation and corrosion resistant coatings are in good condition?

No

Need to re-apply coating

Inspection / External Inspection

No erosion or dents found on surfaces of the vessel?

No

Visible dent observed. Urgent need of repair.

Inspection / External Inspection

Free of cuts or gouges?

No

Found cut. Initial assessment is for repair only but will determine if need to be replaced after test.



Photo 1

Inspection / Piping Systems

No evidence of corrosion, erosion, or cracking or other detrimental conditions?

No



Photo 3

Inspection

4 flagged, 89.47%

External Inspection

3 flagged, 72.73%

External coverings such as insulation and corrosion resistant coatings are in good condition?

No

Need to re-apply coating

No leakage of gas, vapor, or liquid?

Yes

Pressure vessel mountings have adequate allowance for expansion and contraction?

Yes

Free of cracks, deformations, or other defects on vessel connections (Manholes, reinforcing plates, nozzles, or other connections)?

Yes

Free of corrosion or defects on bolts and nuts?

Yes

No distortion found on accessible flange faces?

Yes

No erosion or dents found on surfaces of the vessel?

No

Visible dent observed. Urgent need of repair.

Free of distortion?

Yes

Free of cuts or gouges?

No

Found cut. Initial assessment is for repair only but will determine if need to be replaced after test.



Photo 1

Determine if should be repaired or replaced

Surfaces of shells and heads is free of cracks, blisters, bulges, and other evidence of deterioration? Same with skirt and the support attachment and knuckle regions of the heads?

Yes

No cracks or other defects on welded joints and the adjacent heat affected zones?

Yes

Internal Inspection

100%

Internal inspection may be required only if the ultrasonic wall thickness data indicate that there is some wall thinning or no stamp indicating original wall thickness of the shell and dished heads. All parts of the vessel should be inspected for corrosion, erosion, hydrogen blistering, deformation,

cracking, and laminations.
https://www.usbr.gov/power/data/fist/fist2_9/fist2-9.pdf

Adequate number of threads are engaged on threaded connections?	Yes
All openings leading to any external fittings or controls are free from obstructions?	Yes
Special closures are adequate?	Yes
No cracks at areas of high stress concentration?	Yes
Vessel internals have no deterioration that might constitute a hazard?	Yes
Free of corrosion?	Yes

Safety Devices

100%

The following steps should be performed for each safety device:

IMPORTANT: The set pressure is not higher than the maximum allowable working pressure (MAWP) marked on the pressure retaining item?

Yes



Photo 2

If multiple devices are provided, the difference between set pressure does not exceed that permitted by the original code of construction?

Yes

Verify the nameplate capacity and, if possible, compare it to the system capacity requirements.

Identification on seals match nameplates or other identification (repair or reset nameplate) on the valve or device?

Yes

The valve or device is sealing properly and not leaking?

Yes

Seals are intact and show no evidence of tampering?

Yes

Connecting bolting is tight and all bolts intact?

Yes

The valve has no deposits or mineral buildup?

Yes

No evidence of rust or corrosion?

Yes

Parts are not damaged or misapplied?	Yes
Visible drain holes are not clogged with debris or deposits?	Yes
Rupture Disks:	
Rupture disk nameplate information, including stamped burst pressure and coincident temperature, is compatible with the vessel and/or safety relief valve?	Yes
Markings indicating direction of flow are correct?	Yes
The space between a rupture disk and a safety relief valve is supplied with a pressure gage, try cock, or tell tale indicator to indicate signs of leakage through the rupture disk? (Leaking disks should be replaced.)	Yes
If a rupture disk is used on a valve outlet, is the valve design not influenced by back pressure from leakage through the valve?	Yes
For rupture disks installed on the valve inlet, is the combination rules of the code of construction have been applied?	Yes

Piping Systems

1 flagged, 83.33%

Is there provision for expansion?	Yes
Is there provision for adequate support?	Yes
No evidence of leakage?	Yes
Is there proper alinement of connections?	Yes
Proper rating for the service conditions?	Yes
No evidence of corrosion, erosion, or cracking or other detrimental conditions?	No



Photo 3

Pressure Gages - pressure indicated by the required gage should be compared with other gages on the same system.

Completion

Comments

Found a cut and a dent. Will conduct test to determine if can be salvaged by repair or needs replacement. If can still be repaired, will proceed with reapplication of corrosion resistant coating on vessel and piping.

Inspector Name and Signature

Bernard F
28.06.2023 10:07 PST

A handwritten signature in black ink, appearing to be 'BF' with a long, sweeping flourish extending upwards and to the right.

Photo 4

Media summary



Photo 1



Photo 2



Photo 3

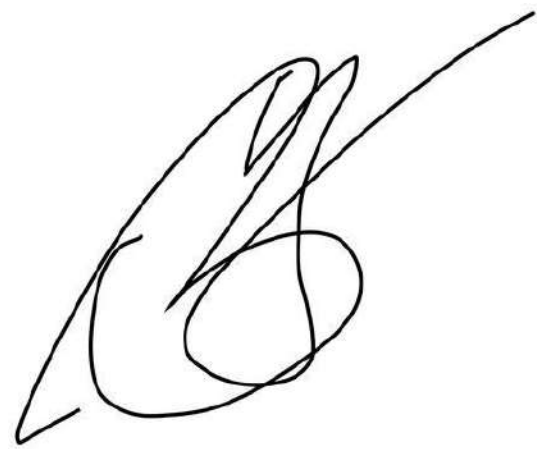


Photo 4