



Pump Maintenance Checklist (Station Inspection)

2 Feb 2023 / Katie Ang

Complete

Score	90.91%	Flagged items	7	Actions	2
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Prepared by

Katie Ang

Conducted on

02.02.2023 16:30 PST

Location

Lakeside, CA, USA
(32.8572718, -116.9222488)

Flagged items & Actions

7 flagged, 2 actions

Flagged items

7 flagged, 2 actions

Inspection / Pumps

Inspect for any damage to paint on pump

At Risk



Photo 1

Inspection / Valve Vault

Inspect paint on all mechanical piping (cracks, blisters, loose paint)

At Risk



Photo 2

Inspection / Control Panel

Ensure that wiring schematic is in door pocket

At Risk

Missing. Will talk with M to get it replaced.

Inspection / Operations Test - Pump System

Inspect sealing flange of pump for proper seal (no leaks)

At Risk

To Do | Priority High | Due 10.02.2023 16:33 PST | Created by SafetyCulture Staff

Sealing flange fix

Hello M, flange seal needs to be replaced or fixed. Can you come over please. This needs to be fixed before 3pm. Thank you!

Inspection / Operations Test - Pump System

Test "high-water" and "low-water" alarms

At Risk

Alarms working but there is a delay. Will need to be fixed.

Inspection / Operations Test - Pump System

Note any unusual noises/vibration

At Risk

Noise can be heard where I instructed the flange seal to be fixed. Fixing should correct the noise.

Inspection / Operations Test - Generator

Receipt of manufacturer's warranty (2-year)

At Risk

We are nearing end of warranty. Assigned action to M to meet me and consider getting a new generator.

To Do | Priority Low | Due 10.02.2023 16:35 PST | Created by SafetyCulture Staff

Nearing end of warranty

Hello M, warranty ending for the generator. Let's meet before end of shift to consider replacing the generator. Thank you!

Other actions

0 actions

Inspection	7 flagged, 2 actions, 90.91%
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Site	100%
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Inspect asphalt; check slope for proper drainage (no puddles)	Safe
Inspect asphalt; check slope for proper drainage (no puddles)	Safe
Inspect grounds	Safe
Inspect fencing and gate; ensure correct operation of gate (full swing)	Safe
Inspect fence posts and fabric for correct material (vinyl coated black or brown)	Safe
Ensure that all debris has been removed from site	Safe

Wetwell	100%
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Inspect interior coating (cracks, blisters, loose material, exposed concrete, etc.)	Safe
Inspect exterior coating (coal-tar epoxy)	Safe
Ensure that stainless steel bolts are utilized in ductile iron piping	Safe
Inspect concrete penetrations (discharge piping, conduits, etc.)	Safe
Ensure that all penetrations are cored and link-sealed, then finished with epoxy grout	Safe
Check proper operation of aluminum hatch and placement per approved design	Safe
Check and verify opening of hatch to accommodate pump extraction	Safe
Verify all required signage has been provided (Confined Space, OSHA, etc.)	Safe
Verify operating range of (bubbler and/or floats) per approved design	Safe
Inspect alignment of discharge piping	Safe
Inspect paint used on piping	Safe

Inspect alignment of poly ladder rungs, ladder placement, and ladder mast bracket

Safe

Pumps

1 flagged, 66.67%

Pull each pump and reset; check for ease of removal, alignment of rails and proper sealing at disconnect flange

Safe

Inspect for any damage to paint on pump

At Risk



Photo 1

Inspect cord and cord placement

Safe

Valve Vault

1 flagged, 85.71%

Inspect interior coating (cracks, blisters, loose material, exposed concrete, etc.)

Safe

Inspect paint on all mechanical piping (cracks, blisters, loose paint)

At Risk



Photo 2

Inspect alignment of discharge piping

Safe



Photo 3

Verify pressure gauges are in place and the correct type

Safe

Check and verify opening of hatch

Safe

Verify all required signage has been provided (Confined Space, OSHA, etc.)

Safe

Ensure drain line is at grade from valve vault to wetwell

Safe

Piping

100%

Ensure alignment of discharge piping between wetwell and valve vault

Safe

Electrical

100%

Verify that seal-offs are sealed with sealing compound

Safe

Verify that pump motor leads are a continuous run from pump to control panel

Safe

Verify the usage of stainless steel strain reliefs on all pump and float cords

Safe

Verify that bubbler line is sealed off in conduit

Safe

Verify seal-offs are located in vault, and that all conduit penetrations are grouted

Safe

Verify that there has been a signed, approved electrical inspection report

Safe

Ensure that ground rods are accessible and have risers installed for access per specification

Safe

Control Panel

1 flagged, 92.86%

Ensure that wiring schematic is in door pocket

At Risk

Missing. Will talk with M to get it replaced.

Ensure that "control" side of panel is oriented facing the wetwell

Safe

Verify UL labeling

Safe

Inspect enclosure for chipped paint or other damage

Safe

Utilize mil-thickness gauge to verify proper DFT per specification

Safe

Verify signed-off electrical inspection report from governing electrical inspector

Safe

Verify all pilot lights are operational

Safe

Verify all wires are labeled

Safe

Verify all placards are in place

Safe

Verify all wiring debris has been removed from enclosure	Safe
General inspection of field wiring	Safe
Conduct operation test of controls	Safe
Pump manufacturer to supply additional motor nameplates (crew to place on interior door)	Safe
Specialty products mounted and placed in interior of control panel	Safe

Telemetry System

100%

Visually verify all components have been provided and pre-wired (radio, antenna, all associated wiring, alarm points, etc.)	Safe
Check communication link to base station	Safe
Inspect field wiring	Safe
Ensure that standard mast and antenna are supplied (standard anchoring method)	Safe

Operations Test - Pump System

3 flagged, 1 action, 70%

Ensure contractor and contractor's representatives are present during start-up (electrician, control panel manufacturer, pump manufacturer, mechanical, etc. - generator manufacturer optional)	Safe
Verify pump rotation, reverse leads if necessary	Safe
Throttle valves while filling force main, if applicable	Safe
Draw-Down Test - Calculate actual GPM and compare to design specifications (check both pumps)	Safe
Add water to system and/or simulate flow; confirm operation of liquid level control system	Safe
Inspect sealing flange of pump for proper seal (no leaks)	At Risk

To Do | Priority High | Due 10.02.2023 16:33 PST | Created by SafetyCulture Staff

Sealing flange fix

Hello M, flange seal needs to be replaced or fixed. Can you come over please. This needs to be fixed before 3pm. Thank you!

Pull pumps and extract from wetwell; ensure clearances are maintained and pumps travel smoothly	Safe
on rail system; check pump cords for obvious obstructions	Safe
Test "high-water" and "low-water" alarms	At Risk
Alarms working but there is a delay. Will need to be fixed.	
Note any unusual noises/vibration	At Risk
Noise can be heard where I instructed the flange seal to be fixed. Fixing should correct the noise.	

Operations Test - Generator

1 flagged, 1 action, 92.31%

Verify diesel tank is fully fueled after manufacturer's representative has performed load run	Safe
Run generator in "manual" mode; check hertz, voltage, etc; verify operation of load bank	Safe
Verify certified affidavit of start-up and load testing from manufacturer's representative	Safe
Receipt of manufacturer's warranty (2-year)	At Risk
We are nearing end of warranty. Assigned action to M to meet me and consider getting a new generator.	

To Do | Priority Low | Due 10.02.2023 16:35 PST | Created by SafetyCulture Staff

Nearing end of warranty

Hello M, warranty ending for the generator. Let's meet before end of shift to consider replacing the generator. Thank you!

Test "auto shut-down" on overspeed circuit	Safe
Test to see if genset meets decibel requirements of specifications	Safe
Simulate power failure (disconnect main breaker); verify automatic start of genset	Safe
Verify automatic transfer of power to emergency source; check for proper time delay between sequences	Safe
Let run for ten (10) minutes	Safe
Restore utility power source; verify automatic transfer, cool-down cycle time, and shut down	Safe
Test load bank for proper operation	Safe

Ensure that separate circuits are provided for battery charger and block heater

Safe

Test block heater and battery charge for proper operation

Safe

Completion

Comments

Issues found today and already assigned immediate correction. Expected everything to be corrected before 4 pm tomorrow and will meet with M also to discuss getting approval for a new generator.

Inspector Name and Signature



Katie Ang
02.02.2023 16:36 PST

Appendix



Photo 1



Photo 2



Photo 3