

Document Owner: Manager Customer Planning

Pump(s) Inspection & Maintenance - Planned Maintenance

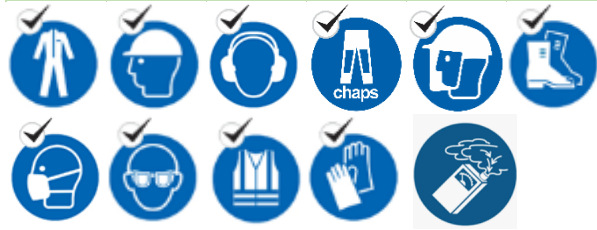
Planned maintenance procedures for pump/s inspection/s and maintenance at pump stations.

Health & Safety and Operational Information

Hazard Indicators



Personal Protection



Health and Safety Information

- Health and Safety documentation.
- Generic Traffic Management Plans or site-specific Traffic Management plan.
- Hazardous Waste
- Confined Space Entry
- Gas detection

Operation's & Maintenance Documentation

- Corridor Access Requests (CAR) and WIP Permits (site specific or generic/global)
- Service plans (B4uDig)
- Design drawings & P&ID's
- Site plans

Customer Information (Confidential)

Priority Customer Categories

Emergency Procedure / Escalation

Additional Documentation

Emergency

- Make "Site Safe" and isolate risks to people or property with resources at hand
- Emergency Rescue Plan
- In event of service strike to utility/energy source (e.g. fuel, Gas, Power, Water etc.) report immediately to team leader
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Escalate if extra resources required or problems occur!

- Escalate to Team Leader and inform of the issues faced and/or expected resources required if necessary.

Required Skills, Competencies (Qualifications and/or Certifications)

Pump Station Operator.
Confined Space.

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Standard Operating Procedure

Required Equipment

Equipment and Information	Details
Fully Equipped Vehicle	Ensure vehicle, plant, equipment and materials appropriate to the day's work schedule is available.
Specialist Equipment	Ensure specialist equipment required is available for utilisation. Gas detection Tripod and safety harness
Specialist Materials & Parts	Ensure you have loaded up all the required parts and materials required to undertake the maintenance work to be completed.

Prepare to do the work

Action	Action Details
Pre Start Process	Complete the Daily Pre Start - Planning Reactive Maintenance <ul style="list-style-type: none"> - Include Hazard ID - Include Pre-Start Tailgate Meeting Undertake all tasks required in the Generic Planned Maintenance SOP.
Compliance	Traffic Management Plan - Where required, TMP to be in place prior to work starting. TMP to be accessible on site.

Perform the work @ 4 weeks

Action	Trade	Action Details
Inspect	Pump Station Operator	Connections for Generator Check condition of generator switch and available connection
Inspect	Pump Station Operator	Visually check control panel Check cabinet for security Check panel surface has no damage or corrosion. Verify all lighting is operational if not report status Verify all extract fans are operational if not report status Check for damage and corrosion on cabinet Check building or cabinet for Graffiti and arrange for removal if found Duty Pump, Duty Pump Selection, <u>if required</u> rotate duty with next pump on rotation Check that Grundfos control panel operating as designed Check pump for abnormal vibration and noise Check pump valves and pipework Check corrosion and water leakage not present Verify pressure gauges read the same as electronic display Carry out basic remediation of issues and generate new work order for significant works
Inspect	Pump Station Operator	Graffiti on cabinet/ Building
Record	Pump Station Operator	Record pump starts and run hours Record pump delivery and suction Pressure Record pump present Flow Rate and flow totals

Perform the work @ 13 weeks

Action	Trade	Action Details
Maintenance	Pump Station Operator	Grease pump if required Check condition air release valves Check condition of pressure vessels. Verify it is at the correct pressure and has no corrosion. Verify that the pump alignment with the motor is correct. Carry out basic remediation of issues and generate new work order for significant works

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Perform the work @ 52 weeks (includes previous schedule(s))

Action	Trade	Action Details
Maintenance	Pump Station Operator	<p>Verify support beams are certified including block and tackle and report if not compliant</p> <p>Verify that the pumps are securely fixed to the ground</p> <p>check condition and operation of reflex valves</p> <p>check condition and operation of bellows</p> <p>Check condition and operation of valves</p> <p>Check condition of pump bearing</p> <p>Check condition of coupling guard</p> <p>Verify correct pressure for pressure vessel and it is in good condition with no signs of corrosion</p> <p>Verify pipework condition and its fixings</p> <p>Verify all pipework tapping points are in good condition including the small auxiliary pipework that is utilised</p> <p>Carry out basic remediation of issues and generate new work order for significant works</p>
Record	Pump Station Operator	Record pump data Record pump model, manufacture and KW with a picture of name plate