

Document Owner: Manager Customer Planning

Pump Station - Electrical Inspection & Maintenance

Planned maintenance procedures for electrical inspection and maintenance of 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

Operation's & Maintenance Documentation

- Corridor Access Requests (CAR) and WIP Permits (site specific or generic/global)
- Service plans (B4uDig)
- Design drawings
- Site plans
- Notification Calling Cards

Customer Information (Confidential)

Priority Customer Categories

Emergency Procedure / Escalation

Emergency

- Make "Site Safe" and isolate risks to people or property with resources at hand

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.

Additional Documentation

Required Skills, Competencies (Qualifications and/or Certifications)

Registered Electrician.

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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.
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

Action	Trade	Action Details
Inspect	Electrician	Check busbars and report any corrosion or signs of arcing on bars and main breakers.
Inspect	Electrician	Check generator changeover switch is functioning freely and has no loose connections.
Inspect	Electrician	Inspect station wiring for functionality and integrity of insulation sleeving.
Inspect	Electrician	Inspect station fuses, switchgear, telemetry systems.
Inspect	Electrician	Visually check all identification labels and report on any missing. Check and replace all burnt out indicator and illumination lights. Check all external identification labels.
Inspect	Electrician	Check; <ul style="list-style-type: none"> • Scada graphic page reading and status are correct with the actual PS statuses • Grundfos control panel correctly setup and record parameters
Maintenance	Electrician	Load the switchboard as heavily as possible and take a thermographic image of the switchboard. Identify hot spots and remedy cause (loose connection, fault contact etc). On completion of task reset plant to "Auto" status.
Maintenance	Electrician	Gently clean out Control Panels and switchboards removing dirt and dust, clean exterior surfaces and vacuum interior of control panels, replace all burnt out indicator and illumination lights
Maintenance	Electrician	Conduct earth resistance test on site earthing rod/system. Record resistance.
Maintenance	Electrician	Check all transducers, pressure gauge, door switch alarms, antenna connections and attachments, battery age, all cables, external push buttons, junction boxes and sockets for damage or leakage.
Maintenance	Electrician	Test & verify pumps (& in auto mode), pump control, alarm circuits provide a written report recording all test results. <ul style="list-style-type: none"> • for the duty pump close the delivery side valve to test no flow and delivery pressure switch & reset • pump stops and the second start pump starts • Reset both pumps after the delivery pressure switch test has been completed • all RCD socket outlets
Maintenance	Electrician	All electrical switchboards for signs of loose connections frayed wires etc. Check all main power terminals for tightness
Maintenance	Electrician	All electrical appliances and recertification where required.
Maintenance	Electrician	Check VSD and soft starter protection parameters
Maintenance	Electrician	High Delivery, Low Suction Pressure Test and No water test – if fitted