



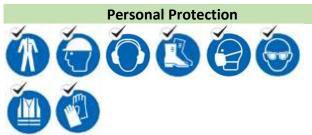
Document Owner: Manager Customer Planning

Stormwater Penstocks - Planned Maintenance

Planned maintenance procedures for maintenance and testing of Stormwater Penstocks. Stormwater Penstock inspection and maintenance is generally a confined space entry into a sizable chamber or manhole

Health & Safety and Operational Information





Health and Safety Information **Operation's & Maintenance Documentation** Health and Safety documentation. Corridor Access Requests (CAR) and WIP Permits -_ Generic Traffic Management Plans or site-specific (site specific or generic/global) Traffic Management plan. Service plans (B4uDig) **Confined Space Entry** Design drawings _ Safety harness Site plans Working near water Rotork operational procedures where fitted _ **Rescue tripod** -Number of People Working from Heights _ Isolate mechanical rotork mechanism where fitted River level or tide level info from daily reports **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 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)

Competent and trained operator

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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.		
Consisting Francisco and			
Specialist Equipment	Ensure specialist equipment required is available for utilisation.(Harnesses, Lanyard, Rescue Tripod, Gas Monitor, standby person)		
Specialist Materials & Parts	Ensure you have loaded up all the required parts and materials, including lubricants, 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 Maintenance	
	- 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 b	
	accessible on site .If only affected by foot traffic, set up delineator cones and barrier cone bars.	
	Second person to act as spotter to keep general public away from open chamber	

Perform the work

Action	Trade	Action Details
Maintenance	Competent Person	Check penstock chamber is clear of accumulated material. Check penstock site where practical that upstream intake(s) are clear of materials which could result in a potential blockage or risk to allowing full closure. Ensure downstream spillways are clear and free flowing report any significant restriction or erosion. Create reactive work order for issues, which cannot be rectified during scheduled maintenance. Hand remove, or arrange for suction clean to remove large amounts of debris. Follow Q-Pulse guidelines for 'Digging less than 1.5M deep' Checklist.
Inspect	Competent Person	Check for leaks and ensure all seals are operational.
Maintenance	Competent Person	Remove debris from associated manholes and chambers. Follow Confined Space Entry' policy. Ensure correct categorisation and correct PPE is set up for chamber entry and the use of a calibrated Gas Monitor
Maintenance	Competent Person	Refit and lock all access chamber lids and covers.