

C1.001 Sewer Pumping Station Pre-commissioning Checklist

Development Construction Specification C402 – Sewerage System Requirements

Pre-Commissioning Checklist	check
ELECTRICAL	
Confirm that 'Notification of Electrical Work' has been submitted to Energy Supplier and Tweed Shire Council Water and WasteWater Unit	
Check that electricity supply has been connected and energised	
Factory Acceptance Testing (FAT) completed and results acceptable? (NOTE: Separate documentation is required for this check E.1.001.1)	
Check 'DANGER ELECTRIC' marker bricks are installed at ground level and painted yellow	
Check pole / pillar termination method is as per the specification and the Supply Authority requirements	
Check cable supports for the pump cables, level probe and any level regulators are correctly located and properly fixed	
Check motor cables are supported in the wet-well - to avoid damage when removing other pump	
Verify level controller calibration	
Check Overflow Trode has been adjusted to the required level and terminated in switchboard	
Check no-flow protection equipment (if specified) fitted and wired correctly	
Check switchboard has been installed correctly	
Check earth electrode installed as specified and measure and record earth resistance	
Check earth pit, main earth electrode and bond installed and labelled as specified	
Check all cables are properly glanded at the switchboard	
Check appropriate lugs fitted to all flexible cables, and cables correctly identified at terminators	
Check all switchboard labels are as specified	
Check all safety labels installed as specified	
If no-flow protection is fitted set the no-flow bypass timer to 20 seconds	
Check all switchboard terminals have been re-tensioned, particularly those terminations carrying motor current	
Check all wire numbers are as shown on the drawings	
Check all terminal numbers are as shown on the drawings	
Check all fuses / circuit breaker settings are correct	
Check all other motor protection equipment operates as specified	
Carry out point to point wiring checks	
TECHNICAL	
PLC developed and testing in workshop?	
RTU inspected and installed to standard?	
Communications to site checked and satisfactory?	
Level settings established from Design Philosophy for SPS levels (Internal TSC)?	
MECHANICAL	
Check all signage is installed and is appropriate e.g. crane SWL, 'Danger', automatic equipment signs, hearing protection requirement etc.	
Check building and equipment identification e.g. site signage, sewerage pumps, pipework, and isolating valves	
Check RPZD is installed and has been tested by appropriately licensed plumber	

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Check TSC vehicle crane functionality and coverage over strategic equipment	
Check there is no rubbish in the wet well, inlet MH and emergency storage which is likely to damage the sewage pumps	
Check stairways, handrails and landing comply with design requirements and are properly installed, if applicable	
Check that manufacturers' requirements in terms of installation, lubricants and quantities, and alignment have been complied with for relevant equipment	
Check accessibility to equipment for operation and maintenance	
Check pressure gauge cocks provided for each pump upstream of the reflux valve.	
Check all pipework within the station is complete and suitable supported and anchored	
Check all sewage pipework & valves in valve pit comply with design, closing is correct orientation and can be dismantled, etc.	
Check direction of rotation of all rotating equipment is correct and free (Bump test)	
Check all safety signage is installed and is appropriate e.g. crane SWL, 'Danger', automatic equipment signs, hearing protection requirement etc.	
Confirm pump installation minimum dimension off floor as per pump design.	
Confirm that well will be filled with sufficient water for testing and how this is being arranged.	
CIVIL	
Is the SRM pipework ready for testing? (i.e. Pressure tested, air valves and scours checked and combined pumping lines known)	
Check site drainage and valve pit drainage	
Well surface coatings are of approved product and applied to suit application?	
Check accessibility to site including driveway entrance/exit, turning of vehicles, prevention devices to stop driving on lids etc.	
Wet Well lids and valve lids open correctly?	
Is fall prevention equipment installed correctly?	
Building is as per design and Building code?	
Building connected to power, lighting working, ventilation, doors and security suitable?	
Has water been connected with meter and RPZD?	
DOCUMENTATION	
Drawings – WAE completed are received?	
Operations manuals provided and sufficient for each piece of equipment?	
Performance and Asset Information received (Pump Curves, factory testing results, User defined fields in Asset Register)?	
Defects Liability and Warranties are provided and adequate?	
Are Inspection Test Plans (ITP's) in place for each piece of equipment on the site? TSC ITP's can be used.	

Note: this checklist is for the use of Tweed Shire Council Authorised Persons Only. The checklist should be used as a guide only by developers to ensure that all items are completed prior to the pre-commissioning inspection of the Sewer Pumping Station by Tweed Shire Council.