



APPENDIX I - Sewerage and Water Pump Station Commissioning Checklists ^{CRC}

PRE-COMMISSIONING CHECKLIST FOR NEW ASSETS WATER SITES

REQUIREMENTS BY CONTRACTOR

The following checklist is required to be fully completed, signed and returned to Council before a joint commissioning is considered. Please note: in the event of a commissioning being abandoned due to works not completed or operational, Council will recover costs incurred.

SITE NAME RESERVOIR: _____ **SITE NAME P/S:** _____

- Ergon Power available Yes No
- Provision of sufficient water for all testing purposes Yes No
- Fresh water discharge flushing system operating as per design Yes No
- Ancillaries (GPO's, lighting etc) tested and working correctly Yes No
- Pre commission switchboard test completed Yes No
- Station telemetry points list supplied Yes No
- Established telemetry communications and verified inputs locally Yes No

VERIFICATION OF AS CONSTRUCTED LEVELS AND OPERATION.

Note: Levels taken from floor level

Setting/Alarm	Measurement	Operational function (contractor to verify correct operation)	
		Yes	No
Overflow level	m	Yes	No
High Level alarm	m	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Fill stop level	m	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Fill request level	m	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Low level alarm	m	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Very Low Level Alarm	m	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Level settings according to design	Yes	No	NA

Commissioning of Civil Works

Item	Complete	Date / Initials	Council Audit
Management			
1. Verify that consultant has provided all documentation. (as constructed details, operating manuals, process and instrumentation diagram, test results etc)	<input type="checkbox"/>		
2. Consultants have supplied O&M manuals – incorporating all drawing both electrical & mechanical.	<input type="checkbox"/>		
3. Consultants have supplied test results including performance pump curves	<input type="checkbox"/>		
If NO then close audit.	<input type="checkbox"/>		
Concrete			
1. Verify that there is no damage to any exposed concrete surface.	<input type="checkbox"/>		
2. Verify that drainage of the site is away from the structures.	<input type="checkbox"/>		
3. Verify that the below ground concrete structures are dimensionally correct and in accordance with the design drawings.	<input type="checkbox"/>		
4. Verify no seepage through the concrete structure.	<input type="checkbox"/>		
5. Verify the verticality of the structure is within tolerance in accordance with SEWL specifications.	<input type="checkbox"/>		
6. Verify that all chamfers are provided in accordance with the design drawings.	<input type="checkbox"/>		
7. Verify that the specified coating to the internal walls has been applied in accordance with the FNQROC Development Manual.	<input type="checkbox"/>		
8. Thickness of internal coating tested (µm)	<input type="checkbox"/>		



CONSTRUCTION PROCEDURES - Appendices

OH&S				
1.	Verify that ladder access meets OH&S requirements.	<input type="checkbox"/>		
2.	Verify that access to valve chamber meets OH&S requirements.	<input type="checkbox"/>		
3.	Verify that all ladders are provided with the extension above the FSL.	<input type="checkbox"/>		
4.	Verify that the ladders have non-slip treads.	<input type="checkbox"/>		
5.	Have safety cages been specified in accordance with Australian Standards.	<input type="checkbox"/>		
6.	Verify that safety cages have been installed in accordance with the design drawings.	<input type="checkbox"/>		
7.	Verify that adequate set down areas for the covers has been provided in accordance with OH&S requirements.	<input type="checkbox"/>		
8.	Verify that no overhead cables restrict access via crane trucks.	<input type="checkbox"/>		
9.	Verify Full Risk Assessment has been performed and permanent operational/ maintenance risks identified	<input type="checkbox"/>		
10.	Verify that all signage pertaining to those risks is in place	<input type="checkbox"/>		
11.	Facility Name and contacts signage	<input type="checkbox"/>		
12.	Standby Emergency Generator – cover, refueling, manuals	<input type="checkbox"/>		
13.	Adequate access, maneuver and parking for maintenance vehicles	<input type="checkbox"/>		
14.	Switchboard access and clearance meets requirements under Electrical Safety Act	<input type="checkbox"/>		
15.	Personnel/maintenance access ring install in side wall of reservoir	<input type="checkbox"/>		



CONSTRUCTION PROCEDURES - Appendices

Products & Materials	Complete	Date/ Initials	Council Audit
1. Verify that all products incorporated on the project are included on the list of approved products for council.	<input type="checkbox"/>		
2. Verify that all markings as required by council specification are visible on the covers.	<input type="checkbox"/>		
3. Verify that the covers and frames are greased in accordance with the manufacturer's requirements.	<input type="checkbox"/>		
4. Verify that the interchangeable multi part covers have lifting lugs on the beams for removal and covers have clockwise lifting key holes.	<input type="checkbox"/>		
5. Verify that internal ladders are stainless steel.	<input type="checkbox"/>		
Pipes and Fittings			
1. Verify that the valves are anticlockwise closing.	<input type="checkbox"/>		
2. Verify that adequate supports have been provided for the valves.	<input type="checkbox"/>		
3. Are valve extension spindles required?	<input type="checkbox"/>		
4. Verify that there is sufficient clearance for maintenance.	<input type="checkbox"/>		
5. Are adequate supports provided in accordance with standard drawings.	<input type="checkbox"/> YES	NA	
6. Verify that DICL pipe work has been provided to correct nominal diameter DN.	<input type="checkbox"/>		
7. Verify that adequate supports for vertical pipe work has been provided in accordance with FNQROC Development Manual.	<input type="checkbox"/>		
8. Verify that all gate valves operate through the full range and are left in the open position.	<input type="checkbox"/>		
9. Verify that a flap valve has been installed on the valve chamber drain if required by the design.	<input type="checkbox"/>		



CONSTRUCTION PROCEDURES - Appendices

10.	Verify that the specified coating for all valves has been applied.	<input type="checkbox"/>		
11.	Verify that the specified coating for the pipe work has been applied.	<input type="checkbox"/>		
12.	Verify that the specified bolting system on the flanges has been used.	<input type="checkbox"/>		
13.	Verify that all valves can be removed through the available cover opening.	<input type="checkbox"/>		
14.	Verify that a flanged dismantling joint has been provided to allow ease of removal of valves in accordance with standard drawings.	<input type="checkbox"/>		
15.	Has the consultant submitted completed project ITP containing all signatures.	<input type="checkbox"/>		
16.	Verify all steel metalwork has been Hot Dipped Galvanized.	<input type="checkbox"/>		
17.	Verify all bolts are 316 stainless steel with 308 nuts.	<input type="checkbox"/>		

Other Services.	Complete	Date / Initials	Council Audit
1. Verify that the water service has been fitted with an approved back flow prevention device.	<input type="checkbox"/>		
2. Verify that all conduits through the walls have been sealed.	<input type="checkbox"/>		
3. Verify that electricity is below ground, not above.	<input type="checkbox"/>		
4. Verify that the sealed access track is in accordance with the design drawings and the FNQROC Development Manual.	<input type="checkbox"/>		
5. Verify that adequate site drainage has been provided.	<input type="checkbox"/>		
Restoration.			
Verify that the site restoration has been completed.	<input type="checkbox"/>		

Testing.				
1.	Verify that Factory Acceptance Testing of the switchboard was completed	<input type="checkbox"/>		
2.	Verify that pump tests passed	<input type="checkbox"/>		
3.	Verify that rising main has been tested	<input type="checkbox"/>		
Mechanical Equipment.				
1.	Refer to receiving Council for specific requirements	<input type="checkbox"/>		

Electrical Equipment.				
1.	Verify identification plates has been fitted to the electrical cabinet.	<input type="checkbox"/>		
2.	Verify that the telemetry antenna has adequate protection in accordance with specification.	<input type="checkbox"/>		
3.	All wiring is installed, terminated and tagged as per drawings.	<input type="checkbox"/>		
4.	All Earthing systems are installed & tested to Australian standards.	<input type="checkbox"/>		
5.	Switchboard testing - Fault protection, circuit Breakers & cable insulation tests have been carried out. Results Attached.	<input type="checkbox"/>		
6.	Verify that lighting within the switchboard has been provided.	<input type="checkbox"/>		
7.	Verify that the Council locks fitted to switchboard and operational.	<input type="checkbox"/>		
8.	Verify that quick link generator connectors provided if applicable.			



Security.	Complete	Date / Initials	Council Audit
1. Verify that the security fencing has been installed in accordance with the design drawings.	<input type="checkbox"/>		
2. Verify that council keyed locks installed.	<input type="checkbox"/>		
3. Verify that the switchboard meter cabinet has been fitted with Ergon Locks.	<input type="checkbox"/>		
Have all NCR items been resolved (including any raised as a result of this audit)?	<input type="checkbox"/>		
If YES Issue Acceptance of Works., and close audit.	<input type="checkbox"/>		
Would outstanding NCR items impact on the ability to operate the pump?	<input type="checkbox"/>		
If YES then close audit (wait for NCRs to be resolved).	<input type="checkbox"/>		
Has Council authorised the pumps to remain on?	<input type="checkbox"/>		

If YES, details of the person who authorised this.

NAME.....

SIGNATURE:.....

POSITION:.....

DATE:.....