



APPENDIX I - Sewerage and Water Pump Station Commissioning Checklists
CRC

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.

STATION NAME: _____ STATION NO: _____

- 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

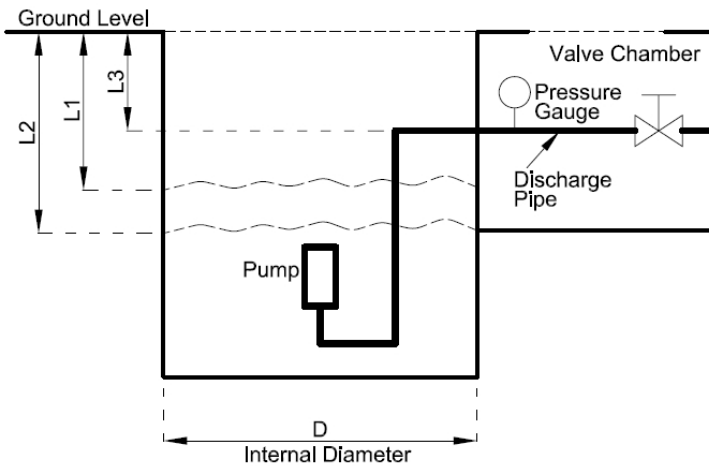
VERIFICATION OF AS CONSTRUCTED LEVELS AND OPERATION.

Note: Levels taken from top of well cover down

Setting/Alarm	Measurement	Operational function (contractor to verify correct operation)
Spill alarm	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
H/L back up pump 2 start	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
H/L back up pump 1 start	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
Probe high level alarm	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
H/L pump cut out/ Transfer	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
Duty pump cut-in	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
Duty pump cut out	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
Probe low level alarm (indication only)	m	Yes <input type="checkbox"/> No <input type="checkbox"/>
Level settings according to design		Yes <input type="checkbox"/> No <input type="checkbox"/>

PROCEDURE FOR PERFORMANCE TESTING OF PUMPS

Contractor to complete for all pumps :-



General Sewerage Pump Station Well

Date _____

Pump No _____

Pump _____ make/model: _____

Electric motor kw _____ SPEED _____ RPM

Serial no:= _____

Measure inside diameter of well:- D = _____ m

Measure L3 = _____ m

Pump duty head H = _____ m

Pump duty flowrate Q = _____ L / S



(A) QUICK CHECK OF PUMP GENERAL CONDITION - HEAD TH1 (AT VALVE CLOSED)

L1 , L2 - operating levels
Run pump for one minute with the delivery valve open.
Close the valve.
Read L1 in meters at the beginning of one minute.
Read L2 in meters at the end of this minute.
Read AMP meter.
Read pressure gauge (HD) in meters at the end of one minute.
Record :

L1 L1 = m
L2 L2 = m
Delivery Gauge reading HD HD = m
Height Correction HC = L2 - L3 HC =m
Total head TH1 = HD + HC TH1 =m

Check TH1 against the pump curve at no flow condition
Check AMPs on pump curve

(B) QUICK CHECK OF INFLOW Q1 (IF INFLOW BLOCKED OFF - GO TO (C))

L1 , L2 - operating levels
Switch off the pump and keep the delivery valve closed.
Read L1 in meters at the beginning of one minute.
Read L2 in meters at the end of this minute.

L1 L1 = m
L2 L2 = m

Calculate flowrate Q1 during this minute

Q1 = l/s

(C) NORMAL FLOWRATE Q2 TEST (VALVE OPEN)

L1 , L2 - operating levels
Run pump for one minute with the delivery valve open.
Read L1 in meters at the beginning of one minute.
Read L2 in meters at the end of this minute.
Read AMP meter.
Read HD in meters at the end of one minute.
Record :

(C) L1 L1 = m
Cont. L2 L2 = m
Delivery Gauge reading HD HD = m
Height Correction HC = L2 - L3 HC =m
Total head TH2 = HD + HC TH2 =m

Calculate flowrate Q2 during this minute

Q2 = l/s

Check AMPs on pump curve



(D) **QUICK CHECK OF INFLOW AGAIN Q2 (IF INFLOW BLOCKED OFF GO TO (E))**

L1 , L2 - operating levels
Switch off the pump and keep the delivery valve closed.
Read L1 in meters at the beginning of one minute.
Read L2 in meters at the end of this minute.

L1 L1 = m
L2 L2 = m

Calculate flowrate Q3 during this minute
Q3 = l/s

(E) **SUMMARY**

If inlet is blocked off for the time of the test the duty head H and duty flowrate Q should be similar to TH2 and Q2.

If inlet is not blocked off for the time of the test the duty head should be similar to TH2 and duty flowrate should be similar to :

$$Q D = Q2 + (Q1 + Q3)/2$$

End of testing of pumps

Pressure gauges calibrated according to QA requirements:- Yes No

Pump performance satisfactory:- Yes No

Test performed by :-_____

Pump performance results as compared to tender offer satisfactory? Yes No

General Contractor Comments:



All information has been supplied and verified ready for Commissioning.

_____/_____/_____
Signed (Contractor) Date

Print name

Note: The telemetry is to be fully ready for commissioning

COUNCIL use only

Level information and Operational function satisfactory	Yes	No
Pump performance results as compared to tender offer satisfactory	Yes	No
Pump motor information readings satisfactory	Yes	No
Telemetry commissioned satisfactorily	Yes	No

General Council Comments:

All information has been supplied and verified at Contractor Pre-commissioning

_____/_____/_____
Signed (Council) Date

Print name