

1.3.21 Control System

Manual control	Operators at pump station observe the process and implement control action manually
Remote manual control	A comprehensive set of measurements is transmitted via RTU unit to the operator employing a SCADA system. The necessary action is taken by the operator, directed from the control console
Automatic control	Signals from field measurements are processed by a suitable RTU for remote control and PLC for local control with adequate programs for the control; control actions are determined by algorithms
Remote automatic control	A comprehensive numbers of measurements, transmitted via RTU unit to the SCADA system, will be processed by computer programs and control actions are determined by algorithms.

- A. Though the SCADA system is not part of this contract, the Contractor shall provide facilities required for the communication with the existing telemetry / SCADA system via RTU. One panel compartment in the MCC shall be provided with local power supply with battery back-up for RTU. RTU, with enough terminals, shall be provided and wired for all input and output connections. The list of I / O shall be in accordance to the latest list issued by the SCADA section of ADM plus 25% spare capacity. A copy of I/O requirements is shown under control Philosophy (subject to revisions in future if required).
- B. A selector switch, having two positions "Local/Remote", shall be provided to enable controlling and operating the entire plant either locally through PLC mounted in control compartment in local mode through when selected in remote mode
- C. By master telemetry system through RTU when remote mode is selected
- D. Pump selection, selector switch with the following selections
- Duty pump No. 1
 - Duty pump No. 2
 - Duty pumps No. 3, etc.