

Volume V
Instrumentation & Control Works

DCPL

S. No	System / Package	Control System	Operation & Control From		Interface with Main Plant/ respective DDCMIS	Remarks
			Local Control Room	Local Control Panels in Field		
9.	Fire Detection, Protection & Alarm System	Microprocessor based Fire detection, Protection & Alarm system., PLC based pump & Aux. controls	Yes	HW signals for equipment status/abnormal condition, Fire water pressure & Fire water tank level.	H/W and soft link Interface of PLC with DDCMIS for monitoring only. Redundant Soft link. & Hardwired for Fire detection & Protection alarm system. Hardwired signals shall	be hardwired to Microprocessor based control System and DDCMIS directly from field/VMS panel. DDCMIS shall have redundant soft interfacing (not in daisy serial link) with each individual compressor's microprocessor based control system, and HW signals required for command, status, local/remote operation, interlock & protection of complete compressor package. In Plant Compressor House – Remote I/O unit with redundant micro processor/controller of DDCMIS family is to be employed with one no. OWS & one no. A4 sized coloured LJP. Through redundant fiber optic cable, the bus is to be connected to DDCMIS of Unit Control Room. a) PLC based pump controls and solid state Annunciation system. PLC shall be with Redundant hot standby processor & one no. OWS, one no. OEWS with A4 sized B/W LJP & A3 sized DMP. b) 100 % hot standby redundant Microprocessor based Fire protection, Detection and Alarm system shall be provided. Fire Alarm Panel shall be provided with 100% hot standby redundant Processor/controller.



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		and solid state annunciator on		Other non critical signals thru soft link for complete Monitoring shall be provided. Yes, for Fire Alarm, detection & Protection system.	be provided for interlock, protection & alarm from Fire alarm panels to DDCMIS and respective PLC. (Redundant bi-directional OPC link with Ethernet Based TCP/IP Protocol for soft link interfacing)	- Repeater Panel shall be provided at different location in plant like each at fire station building, Cooling water pump house, Switchyard control room etc and at any other location as mentioned in the technical specification elsewhere. - Two (2) nos. work stations shall be provided with A4 sized B/W LJP each (one set in CCR in TG building and other set in Fire station building) for Fire Detection, protection and Alarm system. - Stand alone floor mounted Fire Alarm panel shall be provided at different location in plant like each at CCR, ESP control room, CHP control room, AHP control room, WTP (DM plant control room), FO handling Plant control room etc. and at any other location as mentioned in the technical specification elsewhere.
10	Sewage water Treatment Plant	Relay Based	Yes	No	None	Relay based control desk with coloured Mimic, H.W. Annunciator, P.B., Indicators, indication Lamps and Ammeters shall be provided.
11	ETP plant misc sumps with	Relay Based	Yes	No	None	Relay based control desk with coloured Mimic, H.W. Annunciator, P.B., Indicators, indication Lamps and Ammeters shall be provided.

