

Annexure 5: List of new parameters to be added in DCS / PLC systems

Sr. No.	Area	Operating parameter	Applicable number of field instruments	IO signal	AI	DI	Total IO	JB	Cable type	From	To	Cable length	Total Cable	Comments	Comments	Total meter (Tentative)
1	ACW/CCW	ACW pump discharge pressure	03 Nos. of pumps	3	3		15	JB1 (16 way JB)	16P x0.5sqm cable -1 Run	ACW Pump	ACW RIO cabinet	150	150	from each switch to local JB cable 2P x0.5sqm cable and for temp 3P x0.5sqm cable. total 150 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 05 nos from local JB to RIO Cabinet	750
2	ACW/CCW	ACW pump vibration switch status	03 Nos. of pumps	3		3										
3	ACW/CCW	ACW pump DE/NDE bearing temperature	03 Nos. of pumps	6	6											
4	ACW/CCW	ACW motor vibration switch status	03 Nos. of pumps	3		3										
5	ACW/CCW	CCW pump discharge pressure	03 Nos. of pumps	3	3		15	JB2(16 way JB)	16P x0.5sqm cable -1 Run	CCW Pump	ACW RIO cabinet	150	150	from each switch to local JB cable 2P x0.5sqm cable and for temp 3P x0.5sqm cable total 150 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 05 nos from local JB to RIO Cabinet	750
6	ACW/CCW	CCW pump vibration switch status	03 Nos. of pumps	3		3										
7	ACW/CCW	CCW pump DE/NDE bearing temperature	03 Nos. of pumps	6	6											
8	ACW/CCW	CCW motor vibration switch status	03 Nos. of pumps	3		3										
9	ACW/CCW	Ash Cooler Pump discharge pressure	03 Nos. of pumps	3	3		15	JB3(16 way JB)	16P x0.5sqm cable -1 Run	Ash cooler Pump	ACW RIO cabinet	150	150	from each switch to local JB cable 2P x0.5sqm cable and for temp 3P x0.5sqm cable total 150 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 05 nos from local JB to RIO Cabinet	750
10	ACW/CCW	Ash Cooler Pump vibration switch status	03 Nos. of pumps	3		3										
11	ACW/CCW	Ash Cooler Pump DE/NDE bearing temperature	03 Nos. of pumps	6	6											
12	ACW/CCW	Ash Cooler motor vibration switch status	03 Nos. of pumps	3		3										
13	ACW/CCW	PHE CCW inlet pressure	03 Nos. PHE	3	3		18	JB4-JB5(16 way JB)	16P x0.5sqm cable -2 Run	PHE CCW pump	ACW RIO cabinet	150	300	from each switch to local JB cable 2P x0.5sqm cable total 200 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 06 nos from local JB to RIO Cabinet	900
14	ACW/CCW	PHE CCW outlet pressure	03 Nos. PHE	3	3											
15	ACW/CCW	PHE sea water inlet pressure	03 Nos. PHE	3	3											
16	ACW/CCW	PHE sea water outlet pressure	03 Nos. PHE	3	3											
17	ACW/CCW	PHE CCW water I/L and O/L conductivity	03 Nos. PHE	6	6											
18	MHP	Lignite impactor vibration switch status	2 Nos.	2		2	4	JB6(8 way JB)	16P x0.5sqm cable -1 Run	Lime impactor	MHP RIO	150	150	from each switch to local JB cable 3P x0.5sqm cable total 50 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 02 nos from local JB to RIO Cabinet	600
19	MHP	Lime impactor vibration switch status	2 Nos.	2		2										
20	SWTP	Intake pump and motor vibration switch status	12 Nos.	12		12	12	JB7(16 way JB)	16P x0.5sqm cable -1 Run	SWTP intake pump	SWTP RIO	200	200	from each switch to local JB cable 2P x0.5sqm cable total 120 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 07 nos from local JB to RIO Cabinet	1000
21	SWTP	MED HP steam flow TPH	3 Nos.	3	3		11	JB8(16 way JB)	16P x0.5sqm cable -1 Run	MED and Reject water	SWTP RIO	200	200	from each signal to local JB cable 2P x0.5sqm cable total 110 mtrs require	Insted of 16 pair cable use 5Px0.5sqm pair cable 04 nos from local JB to RIO Cabinet	800
22	SWTP	MED condensate conductivity	2 Nos.	2	2											
23	SWTP	Reject water PH	1 No.	1	1											
24	SWTP	Reject water temperature	1 No.	1	1											
25	SWTP	Reject water TSS	1 No.	1	1											

26	SWTP	Reject pump vibration switch status	3 Nos.	3		3													
27	Compressor house	Oil pressure	For 9 Nos. of compressor	9	9		164	JB-9 to JB18 (16 way JB)	16P x0.5sqm cable -9 Run	Compressor	Compressor or RIO	100	900	from each signal to local JB cable 2P x0.5sqm cable total 1640 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 60 nos from local JB to RIO Cabinet	6000			
28	Compressor house	Diff. pressure	For 9 Nos. of compressor	9	9														
29	Compressor house	CCW suction line pressure	1 No.	1	1														
30	Compressor house	CCW suction line flow	1 No.	1	1														
31	Compressor house	Interstage pressure	For 9 Nos. of compressor	9	9														
32	Compressor house	Oil Temp	For 9 Nos. of compressor	9	9														
33	Compressor house	First stage temp	For 9 Nos. of compressor	9	9														
34	Compressor house	Second stage inlet temp	For 9 Nos. of compressor	9	9														
35	Compressor house	HP outlet temp	For 9 Nos. of compressor	9	9														
36	Compressor house	Air outlet temp	For 9 Nos. of compressor	9	9														
37	Compressor house	Water temp	For 9 Nos. of compressor	9	9														
38	Compressor house	Motor winding temp	For 9 Nos. of compressor	27	9														
39	Compressor house	Motor bearing temp	For 9 Nos. of compressor	18	9														
40	Compressor house	Motor current	For 9 Nos. of compressor	9	9														
41	Compressor house	Compressor on/off status	For 9 Nos. of compressor	9		9													
42	Compressor house	Compressor standby status	For 9 Nos. of compressor	9		9													
43	Compressor house	Compressor vibration switch status	For 9 Nos. of compressor	9		9													
44	Switchyard	All breaker on/off feedback	8 Nos.	8		8	55	Electric switch board(direct wiring in switch board)	16P x0.5sqm cable -3 Run	Electric switch board	Switch yard RIO	150	450	rom each signal to local JB cable 2P x0.5sqm cable total 550 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 15 nos from local JB to DCS panle	2250			
45	Switchyard	All isolator on/off feedback	34 Nos.	34		34													
46	Switchyard	GT-1, GT-2, bus coupler on/off feedback	3 Nos.	3		3													
47	Switchyard	switchyard line diagram status	for 7 Nos. of bays	7		7													
48	Switchyard	Electrical board incomer	1 Nos.	1		1													
49	Switchyard	Energy meter reading totalizer	2 Nos.	2		2													
50	CCR: Boiler	All fans vibration switch status	22 Nos.	22		22	61	JB19 to JB 23(16 way JB)	16P x0.5sqm cable -4 Run	Boiler	Main CCR	200	800	rom each signal to local JB cable 2P x0.5sqm cable total 610 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 15 nos from local JB to DCS panle	3000			
51	CCR: Boiler	All BFP pumps vibration switch status	12 Nos.	12		12													
52	CCR: Condenser	All CEP pumps vibration switch status	12 Nos.	12		12													
53	CCR: Boiler	All Hot water pumps vibration switch status	12 Nos.	12		12													
54	CCR: Boiler	HFO and LDO tank level	2 Nos for HFO and 1 for	3		3													
55	CCR: Turbine	De aerator dissolved oxygen measurement	2 Nos.	2		2	40	JB24 to JB 27(16 way JB)	16P x0.5sqm cable -4 Run	Turbine	Main CCR	150	600	rom each signal to local JB cable 2P x0.5sqm cable total 400 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 10 nos from local JB to DCS panel	1500			
56	CCR: Turbine	All turbines extraction flow transmitter	12 Nos.	12		12													
57	CCR: Turbine	CRH steam flow transmitters	12 Nos.	12		12													
58	CCR: Turbine	HRH steam flow transmitters	12 Nos.	12		12													
59	CCR: Boiler	Lime feeding in boiler TPH	2 Nos.	2		2													
60	AC Control Room	AC System: Chiller compressor/pump current	8 Nos.	8		8	30	JB28 to JB 29(16 way JB)	16P x0.5sqm cable -2 Run	AHU room	Main CCR	80	160	rom each signal to local JB cable 2P x0.5sqm cable total 300 mtrs.require	Insted of 16 pair cable use 5Px0.5sqm pair cable 10 nos from local JB to DCS panel				
61	AC Control Room	AC System: Chiller compressor/pump on/off status	8 Nos.	8		8													

