



Owner:
HINDALCO INDUSTRIES LIMITED
Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road, Andheri (East), Mumbai - 400 093, India



EPCM Contractor:
W. L. GORE & ASSOCIATES (Pacific) Pte, Ltd. India Branch
703, A-Wing, 215 Atrium, Andheri Kurla Road, Mumbai 400059, India



Nominated Subcontractor - Engineering, Quality Control, Supervision:
SMARTLuth Solution and Service Pvt. Ltd.
Unit No: 503, 5th Floor, ECO Centre, EM-4 Sector-V, Salt Lake City, Kolkata - 700091, India

Hindalco Renusagar U5 1 x 80 MW PF Captive Power Plant

Flue Gas Desulfurization Project (FGD) with GORE™ SO₂ Control System

FGD - Electrical Load List

1	01-03-2022	REVISED AS MARKED	S.Das	S.Chakraborty		M.Deb
0	23-02-2022	First Issue	S.Das	S.Chakraborty		M.Deb
Rev.	Date	Description of revision	Prepared	Checked	Approved	

Hindalco Renusagar U5 1 x 80 MW PF Captive Power Plant

Drg. / Doc. No. : S21001- EN01 - 05HSD - 331002

Flue Gas Desulfurization Project (FGD) with GORE™ SO₂ Control System

Gore Doc. No.: RPDUS.EM.000 page 1 of 2

FGD - Electrical Load List

GORE Job : RPDUS Rev. : 1

File: FGD - Electrical Load List -R1_dated 01.03.2022

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FGD - Electrical Load List

10	Hindalco Doc No: S21001- EN01 - 05HSD - 331002 WL Gore Doc No: RPDU5.EM.000			Rev-1													Date: 01.03.2022	
	Sl.no	Item name of drive units	Tag no's	P&ID Ref. No.	Working	Stand by	Duty			Feeder Type	Starter Type	VOLTAGE		Power consumption	Motor Power rating		SOV Power rating	Feeder Rating
							CONTINUOUS	INTERMITTENT	STAND BY			3-Phase ,50 HZ, AC	Single Phase , 50 HZ, AC	BKW	KW	HP	KW	
1	MIST-ELIMINATOR/OHT FGTR MAKE-UP/ ASH FILTER- FRESH WATER PUMP-A	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	DOL	415 V		13.26	18.5	25		
2	MIST-ELIMINATOR/OHT FGTR MAKE-UP/ ASH FILTER- FRESH WATER PUMP-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			18.5	25		
3	PROCESS WATER PUMP -A	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	DOL	415 V		29.84	40	54		R1
4	PROCESS WATER PUMP -B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			40	54		R1
5	FGTR MODULE WASH PUMP-A	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	DOL	415 V		35.92	50	67		R1
6	FGTR MODULE WASH PUMP-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			50	67		R1
7	PUMP TO CLIENT SERVICES-A	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT			DRIVE	DOL	415 V		2.49	3.7	5		
8	PUMP TO CLIENT SERVICES-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			3.7	5		
9	FGTR EFFLUENT TRANSFER PUMP-A	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT			DRIVE	DOL	415 V		5.30	7.5	10		R1
10	FGTR EFFLUENT TRANSFER PUMP-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			7.5	10		R1
11	SAC INLET PUMP-A	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	DOL	415 V		1.99	3.7	5		
12	SAC INLET PUMP-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			3.7	5		
13	SAC RECOVERED WATER -A	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	DOL	415 V		2.65	3.7	5		
14	SAC RECOVERED WATER -B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			3.7	5		
15	SAC START-UP RECIRCULATION PUMP -A	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT			DRIVE	DOL	415 V		0.08	0.25	1		
16	SAC START-UP RECIRCULATION PUMP -B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			0.25	1		
17	CONCENTRATED ACID LOADING PUMP -A	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT			DRIVE	DOL	415 V		2.21	3.7	5		
18	CONCENTRATED ACID LOADING PUMP -B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	DRIVE	DOL	415 V			3.7	5		
19	BOOSTER FAN	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				DRIVE	VFD	690 V		560	865	1154		
20	SAC SYSTEM	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				SUPPLY		415 V					400	TENTATIVE, FEEDER RATING, R1
21	MAIN LIGHT DISTRIBUTION PANEL	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				SUPPLY		415 V					100	R1
22	AC DISTRIBUTION BOARD	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				SUPPLY		415 V					100	R1
23	FIRE ALARM SYSTEM	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS				SUPPLY			230 V				32	R1
24	DOSING PUMP-A	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT			SUPPLY	DOL		230 V		0.37	0.5		
25	DOSING PUMP-B	LATER	S21001-XFXX-05HSD-227XX		1				STAND BY	SUPPLY	DOL		230 V		0.37	0.5		
26	AGITATOR OF DOSING TANK	LATER	S21001-XFXX-05HSD-227XX	1			INTERMITTENT						230 V		0.22	0.3		
27	MOTORIZED VALVES AS PER P&ID	LATER	S21001-XFXX-05HSD-227XX	38			INTERMITTENT			DRIVE	R DOL		230 V	20.9	0.55	0.8		TOTAL POWER
28	PILOT SOLENOID FOR PNEUMATIC ACTUATOR OF DAMPERS ON ID FAN TO CHIMNEY	LATER	S21001-XFXX-05HSD-227XX	2			INTERMITTENT			SUPPLY	ON-OFF		230 V				0.12	TOTAL BASED ON POWER REQUIREMENT OF PILOT SOLENOID AS 0.06 KW
29	PILOT SOLENOID FOR PNEUMATIC ACTUATOR OF DAMPERS ON TAP OFF LINE FROM ID FANS TO BOOSTER FAN	LATER	S21001-XFXX-05HSD-227XX	2			INTERMITTENT			SUPPLY	ON-OFF		230 V				0.12	
30	PILOT SOLENOID FOR PNEUMATIC ACTUATOR OF DAMPERS AT BOOSTER FAN SUCTION	LATER	S21001-XFXX-05HSD-227XX	2			INTERMITTENT			SUPPLY	ON-OFF		230 V				0.12	
31	PNEUMATIC ACTUATED VALVES	LATER	S21001-XFXX-05HSD-227XX	142			INTERMITTENT			ON-OFF			230 V				8.52	TOTAL POWER
32	PLC PANEL	LATER	S21001-XFXX-05HSD-227XX	1		CONTINUOUS							230 V				5	TENTATIVE, FEEDER

TOTAL ABSORBED POWER except SAC plant

TENTATIVE 674.65

TOTAL ABSORBED POWER except SAC plant on continuous basis

TENTATIVE 643.66