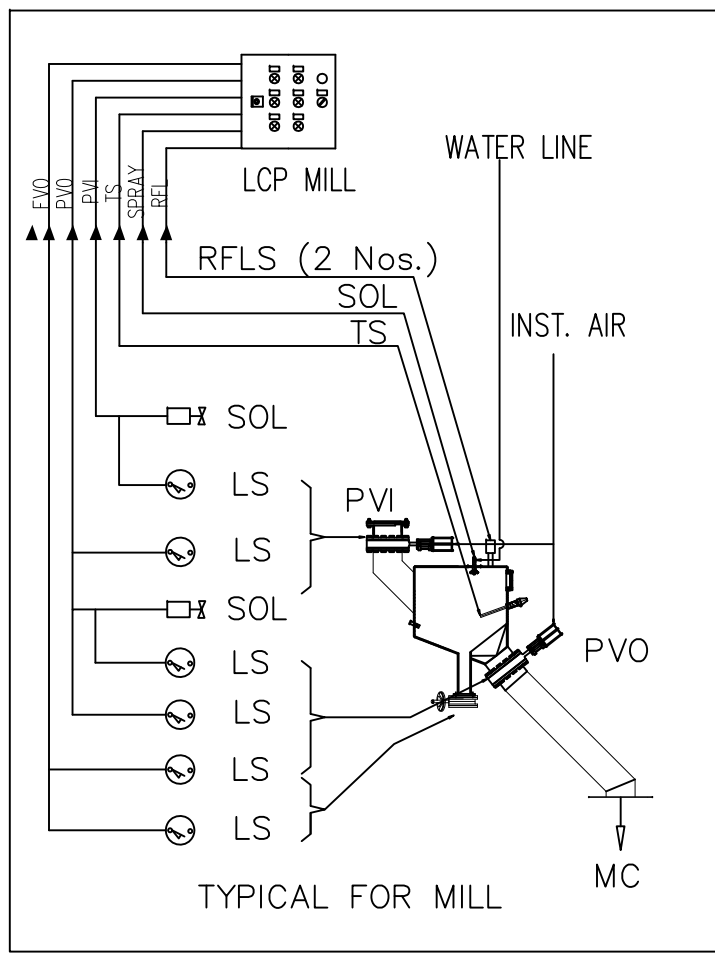
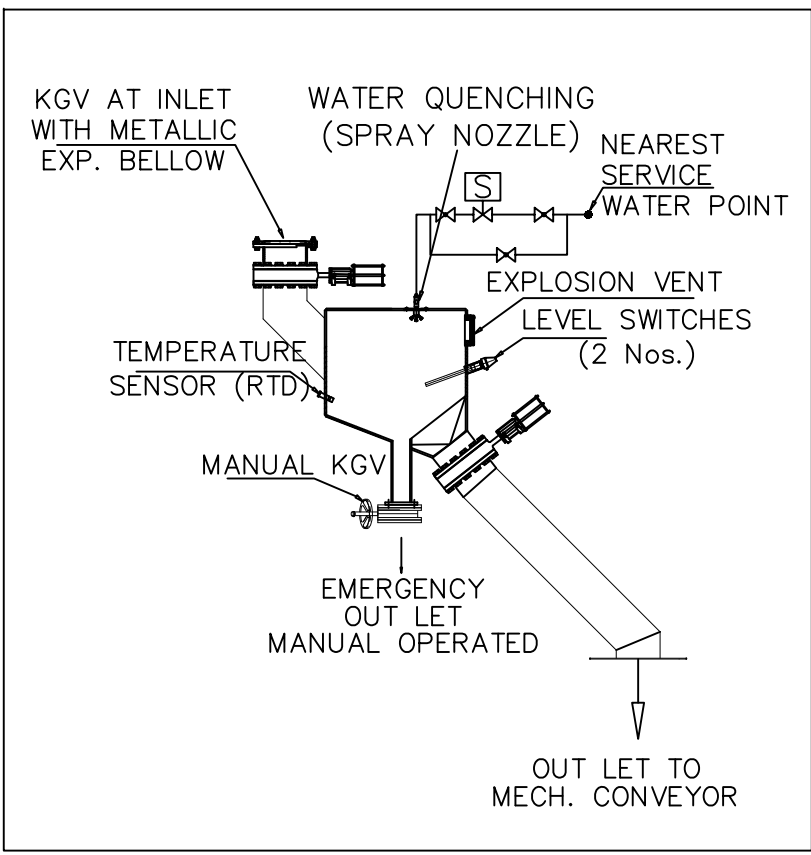
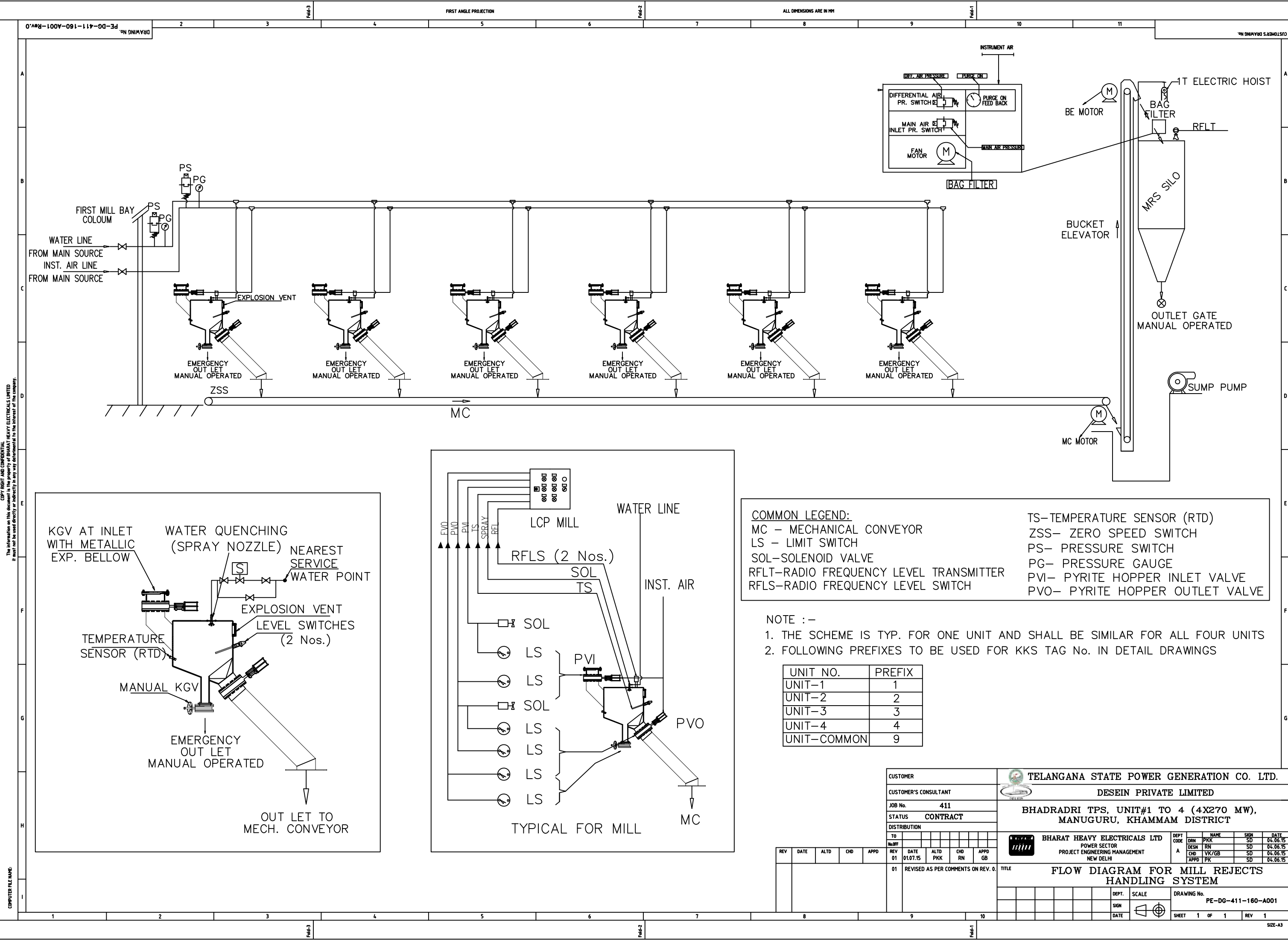


4X270 MW BHADRADRI TPP**MILL REJECT HANDLING SYSTEM: CORRIGENDUM-3 TO TECH. SPEC. PE-TS-411-160-A001**

S.N.	VOLUME/SECTION/ CLAUSE NO.	EXISTING	MODIFIED
1	VOLUME IIB, SECTION C1-A, Clause-2.0 (system description, para-2nd) Page no. 9	Temp switch and level probe (radio frequency type) shall be provided in the pyrite hopper which shall sense the temperature and level in the pyrite hopper respectively.	One no. RTD and two nos. level switches (radio frequency type) shall be provided in each pyrite hopper which shall sense the temperature and level in the pyrite hopper respectively.
2	VOLUME IIB, SECTION C1-A, Clause-3.1 (point no. 1), Page no. 10	Also, 24 nos. of Temperature Switches for pyrite hoppers shall be provided.	Also, 24 nos. of RTDs for pyrite hoppers (one at each pyrite hopper) shall be provided.
3	VOLUME IIB, SECTION C1-A, Clause-3.1 (point no. 2), Page no. 10	24 nos. (1 Nos. per pyrite hopper) of RF type level probes for pyrite hoppers.	48 nos. (2 Nos. per pyrite hopper) of RF type level switches for pyrite hoppers.
4	VOLUME IIB, SECTION C1-A, Clause-3.1 (point no. 12), Page no. 11	Mill reject storage silos: Four nos. mill reject bunker (i.e. one no per unit) along with structures, complete with lining in the conical portion, lever operated bunker discharge gate with canvas chute at bunker outlet, staircase up to bunker top, operating & maintenance platform, hand railing, bag filter, <u>RF type level probe</u> , pressure relieve valve, vent fan (if required), <u>chain pulley block with traveling trolley</u> and monorail arrangement etc.	Mill reject storage silos: Four nos. mill reject bunker (i.e. one no per unit) along with structures, complete with lining in the conical portion, lever operated bunker discharge gate with canvas chute at bunker outlet, staircase up to bunker top, operating & maintenance platform, hand railing, bag filter, <u>1 no. RF type level transmitter at each silo</u> , pressure relieve valve, vent fan, <u>1 no. Electric hoist at each silo</u> and monorail arrangement etc.

5	VOLUME IIB, SECTION C1-A, Annexure-A (Equipment design/ selection criteria), S.N. 4 (Bag Filter)	f) Bag Cleaning Mechanism – Automatic and shall comprise of solenoid valves, air nozzles, adjustable solid state timer, pressure switches, piping and fittings etc.	f) Bag Cleaning Mechanism – Automatic and shall comprise of solenoid valves, air nozzles, adjustable solid state timer, one no. pressure switch for supply air for filter cleaning, one no. differential pressure switch across bag filter, piping and fittings etc.
6	VOLUME IIB, SECTION C, Annexure-VIII (Drawings), Pg no. 267, 268	1. Flow Diagram for Mill reject handling system, PE-DG-411-160-A001, Rev0 2. Tentative layout of MRHS, PE-DG-411-160-A001, Rev0 (No. of sheet-1)	1. Flow Diagram for Mill reject handling system, PE-DG-411-160-A001, Rev1, refer attachment 2. Tentative layout of MRHS, PE-DG-411-160-A001, Rev1 (No. of sheets-2), refer attachment
7	Volume-III,, ELECTRICAL LOAD DATA , Page No. 292	LOAD DATA (ELECTRICAL), REV 0	LOAD DATA (ELECTRICAL), REV 1, Refer attachment
8	VOLUME IIB, SECTION C2 (Electrical portion), “ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR’ Page No. 127, S.N. 6, Remarks Column	Local cabling from nearby main route cable tray (BHEL scope) to equipment terminal (vendor’s scope) shall be through 100/ 50 mm. cable trays/ conduits/ Galvanised steel cable troughs, as per approved layout drawing during contract stage.	Local cabling from nearby main route cable tray (BHEL scope) to equipment terminal (vendor’s scope) shall be through 100/ 50 mm. cable trays/ conduits/ Galvanised steel cable troughs, as per approved layout drawing during contract stage. Main cable trays elevation in mill bay area shall be 8.0M to 9.5M.
9	VOLUME IIB, SECTION C, ANNEXURES, Annexure-I (List of Sub Vendors), Page no. – 237 to 241	LIST OF SUB VENDORS (5 pages)	Refer Annexure- IA (12 pages)



COMMON LEGEND:

MC – MECHANICAL CONVEYOR
LS – LIMIT SWITCH
SOL–SOLENOID VALVE
RFLT–RADIO FREQUENCY LEVEL TRANSMITTER
RFLS–RADIO FREQUENCY LEVEL SWITCH

TS–TEMPERATURE SENSOR (RTD)
ZSS– ZERO SPEED SWITCH
PS– PRESSURE SWITCH
PG– PRESSURE GAUGE
PVI– PYRITE HOPPER INLET VALVE
PVO– PYRITE HOPPER OUTLET VALVE

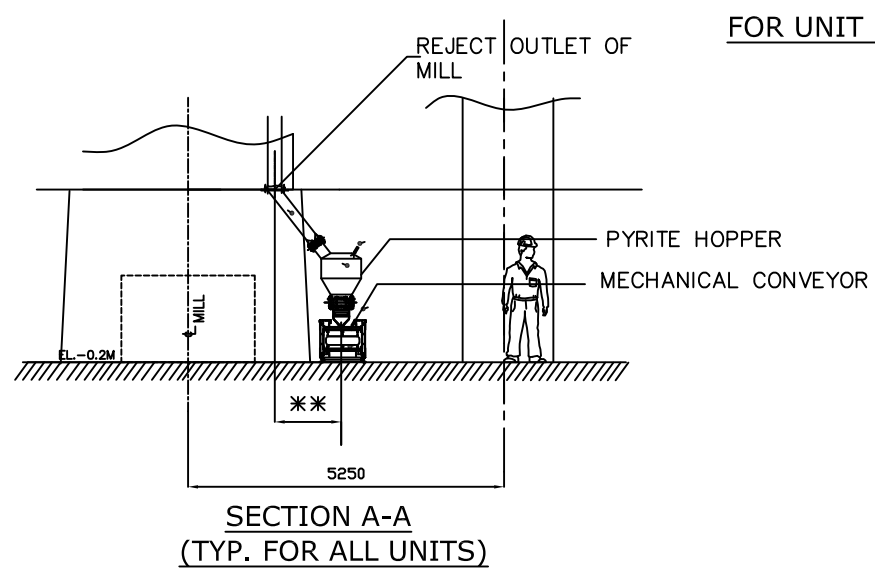
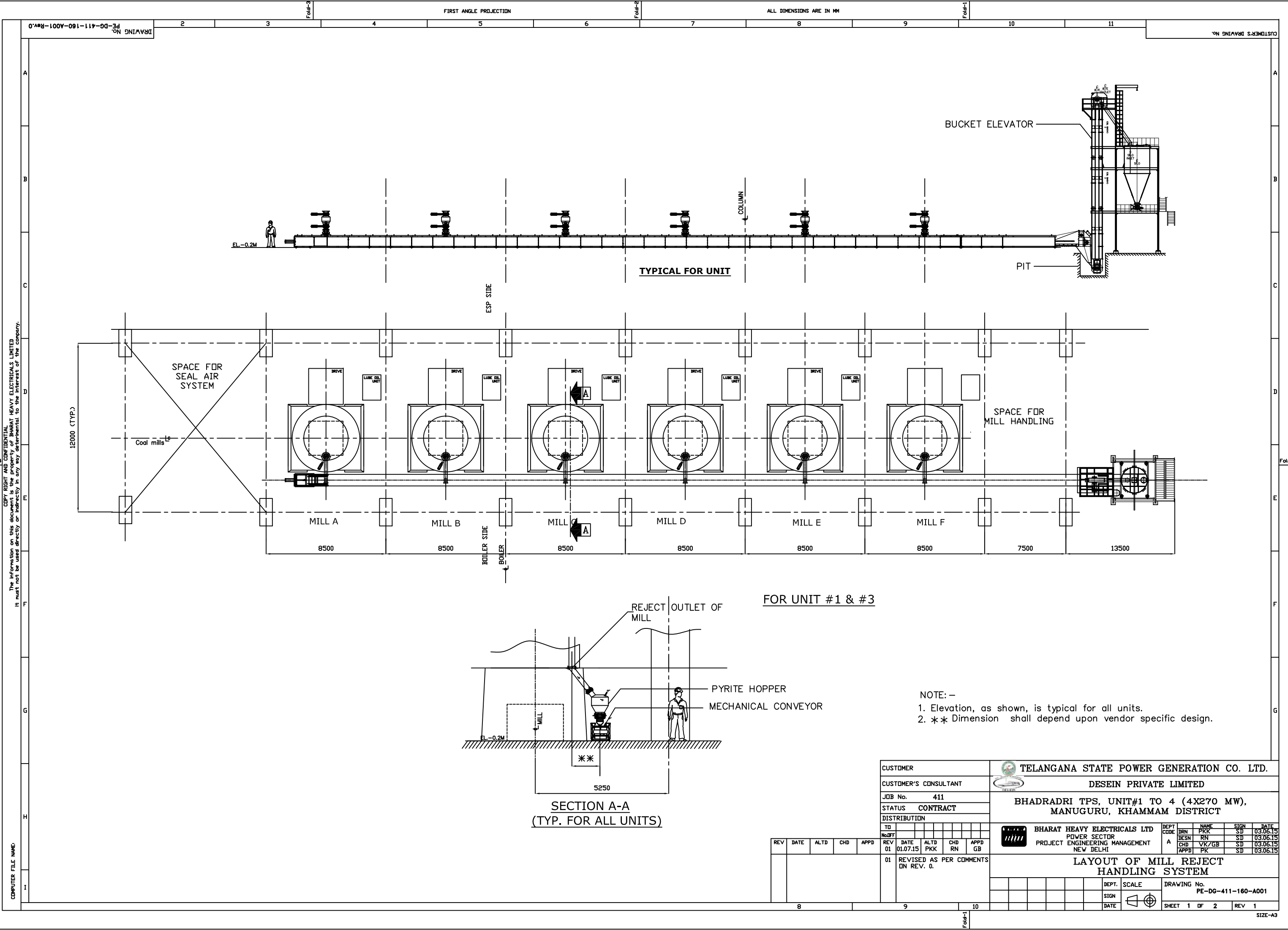
NOTE :-

1. THE SCHEME IS TYP. FOR ONE UNIT AND SHALL BE SIMILAR FOR ALL FOUR UNITS

2. FOLLOWING PREFIXES TO BE USED FOR KKS TAG No. IN DETAIL DRAWINGS

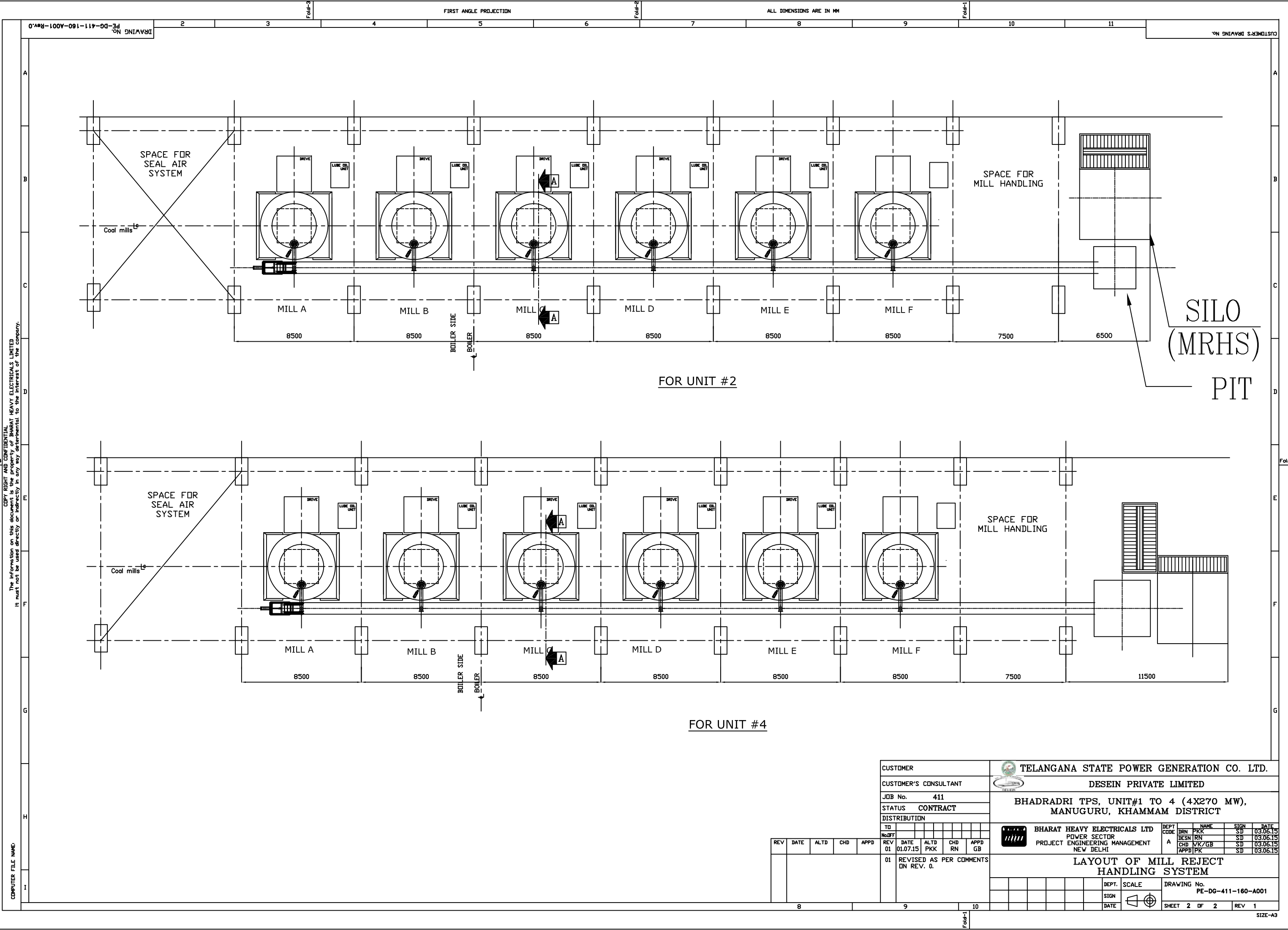
UNIT NO.	PREFIX
UNIT-1	1
UNIT-2	2
UNIT-3	3
UNIT-4	4
UNIT-COMMON	9

CUSTOMER		TELANGANA STATE POWER GENERATION CO. LTD.	
CUSTOMER'S CONSULTANT		DESEIN PRIVATE LIMITED	
JOB No. 411		BHADRADRI TPS, UNIT#1 TO 4 (4X270 MW), MANUGURU, KHAMMAM DISTRICT	
STATUS CONTRACT			
DISTRIBUTION			
TO			
No. OFF			
REV 01		01.07.15	
DATE		ALTD PKK	
CHD RN		APPD GB	
01		REVISED AS PER COMMENTS ON REV. 0.	
TITLE		FLOW DIAGRAM FOR MILL REJECTS HANDLING SYSTEM	
DEPT. SCALE		DRAWING No. PE-DG-411-160-A001	
SIGN DATE		SHEET 1 OF 1 REV 1	



NOTE:-
1. Elevation, as shown, is typical for all units.
2. ** Dimension ** shall depend upon vendor specific design.

CUSTOMER		TELANGANA STATE POWER GENERATION CO. LTD.									
CUSTOMER'S CONSULTANT		DESEIN PRIVATE LIMITED									
JOB No.		411		BHADRADRI TPS, UNIT#1 TO 4 (4X270 MW), MANUGURU, KHAMMAM DISTRICT							
STATUS		CONTRACT									
DISTRIBUTION											
TO											
No. OFF											
REV		DATE		ALTD		CHD		APPD		REV	
01		01.07.15		PKK		RN		GB		SD	



CUSTOMER										TELANGANA STATE POWER GENERATION CO. LTD.									
CUSTOMER'S CONSULTANT										DESEIN PRIVATE LIMITED									
JOB No. 411										BHADRADRI TPS, UNIT#1 TO 4 (4X270 MW), MANUGURU, KHAMMAM DISTRICT									
STATUS CONTRACT																			
DISTRIBUTION																			
TO										 BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NEW DELHI									
No.Off																			
REV																			
DATE																			
ALTD																			
CHD										DEPT									
RN										CODE									
APPD										NAME									
GB										SIGN									
01										DATE									
REVISED AS PER COMMENTS ON REV. 0.										DRN PKK SD 03.06.15									
										DESN RN SD 03.06.15									
										CHD YK/GB SD 03.06.15									
										APPD PK SD 03.06.15									
										LAYOUT OF MILL RECT HANDLING SYSTEM									
										DRAWING No. PE-DG-411-160-A001									
										SHEET 2 OF 2 REV 1									

LOAD TITLE	RATING (KW)		UNIT (U)/STN (S)	Nos.		VOLTAGE CODE*	FEEDER CODE**	EMER. LOAD (Y)	CONT.(C)/INTT.(I)	STARTING TIME >5 SEC (Y)	LOCATION	BOARD NO.	CABLE		BLOCK CABLE DRG. No.	CONTROL CODE	REMARKS	LOAD No.
	NAME PLATE	MAX. CONT. DEMAND (MCR)		SIZE CODE	Nos													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
HORIZONTAL CONVEYOR																		
DRIVE MOTOR	5.5 KW		U	1	0	D	U	-	C		Mill bay area							
VERTICAL CONVEYOR																		
DRIVE MOTOR	5.5 KW		U	1	0	D	U	-	C		Mill bay area							
VIBRATING FEEDERS (IF APPLICABLE)																		
MOTOR	1.1 KW		U	6	0	D	U	-	C		Pyrite hopper of mills							
VENT FAN OF BAG FILTER																		
MOTOR	1.1 KW		U	1	0	D	U	-	C		MRS SILO TOP							
SUMP PUMP																		
MOTOR	3.7 KW		U	1	0	D	S	-	I		Mill bay area							
Note: 1) Control supply for sump pump shall be derived using control transformer (bidder's scope) 2) Ratings of motors have been finalized for different drives. Bidder shall provide the motor of same KW as specified in above table for various application.																		
NOTES: 1. COLUMN 1 TO 12 & 18 SHALL BE FILLED BY THE REQUISITIONER (ORIGINATING AGENCY); REMAINING COLUMNS ARE TO BE FILLED UP BY PEM (ELECTRICAL) 2. ABBREVIATIONS : * VOLTAGE CODE (7):- (ac) A=11 KV, B=6.6 KV, C=3.3 KV, D=415 V, E=240 V (1 PH), F=110 V (DC): G=220 V, H=110 V, J=48 V, K=+24V, L=-24 V : ** FEEDER CODE (8):- U=UNIDIRECTIONAL STARTER, B=BI-DIRECTIONAL STARTER, S=SUPPLY FEEDER, D=SUPPLY FEEDER (CONTACTER CONTROLLED)																		
	LOAD DATA (ELECTRICAL)	JOB NO.	411			ORIGINATING AGENCY			PEM (ELECTRICAL)									
		PROJECT TITLE	4X270MW BHADRADRI TPP.			NAME			DATA FILLED UP ON									
		SYSTEM / S	MILL REJECT SYSTEM			SIGN.			DATA ENTERED ON									
		DEPTT. / SECTION	MAUX / MH			SHEET 1 OF 1		REV. 01		DE'S SIGN. & DATE								

ANNEXURE- IA					
SUB VENDOR LIST FOR MILL REJECT HANDLING SYSTEM (CONVEYOR TYPE)					
SI. No.	DESCRIPTION	MAKE	WORKS	INSPECTION CATEGORY	REMARKS
A	SELF MANUFACTURED				
1	Chain Links/Steel belt/Apron	Self Manufactured	Supplier's works	I / II	In case bid has been submitted on collaboration route, items identified under self manufactured items shall be sourced from collaborator/ Principal/ approved and proven sources of principal
2	Conveyor casing				
3	Pyrite Hopper				
5	Bunker Discharge Gate (Sector Gate)				
6	Pressure Relief Valve				
B	BOUGHTOUT ITEMS (ELECTRICAL)				
1	Motor	Marathon,	kolkata	I	Upto 15 KW
		Crompton Greaves	Ahmednagar		
		NGEF	Bangalore		
		ABB	Bangalore/Faridabad		
		Siemens	Mumbai		
		Jyoti	Baroda		
		LHP	Solapur		
		BHEL	Bhopal		
		Bharat Electric (BHEL)			
		Bharat Bijlee	Mumbai		
		KEC	Bangalore/Hubli		
2	Air Filter/Lubricator/Regulator	SHAVONORGAN	MUMBAI/BANGLORE	III	
	PLACKA	CHENNAI			
3	Annunciator	IIC	MUMBAI	III	
		Minilec	AHEMDABAD		
		PROCON	CHENNAI		
4	Solenoid Valve	Rotex	Baroda	III	
		Avcon	Mumbai		
		Asco	Chennai		
		SMC	Noida		
		Nucon	Hyderabad		
5	Pulse Jet Valves	ASCO	CHENNAI	III	
	MANIK	PUNE			
6	Cable Lug	DOWELLS	MUMBAI	III	
		BILLET (3D)	VALSAD		
		WAGO	INDIA		
		COMETT	MUMBAI		
7	Limit Switch	BCH	NEW DELHI	III	
		SIEMENS	NEW DELHI		
		JAIBALAJI	NEWDELHI		
8	Interposing Relay	ECONIX	MUMBAI	III	
	PHEONIX	DELHI			
9	ZERO SPEED SWITCHES	JAYSHREE	PUNE	III	
		PROTOCONTROL	PUNE		
		P&F	BANGALORE		
10	JUNCTION BOX	AJMERA INDUSTRIAL & ENGINEERING WORKS	SHREE NAGESH INDL. ESTATE,STATION ROAD, MUMBAI	III	FOR GALVANIZED AND FRP JUNCTION BOXES
		FLEXPRO ELECTRICALS PVT. LTD.	GIDC, Kabilpore, Navsari-Gujarat		Metal type junction box only
		K.S.INSTRUMENTS PVT.LTD.	Industrial Suburb, Yeshwanthpur Bangalore-Karnataka		
		SUCHITRA INDUSTRIES	REJAMAHALVILAS EXTN 2ND STG BANGALORE		
		Shrenik & Company,	Panchratna Industrial Estate, Sarkhej-Bavla Road Ahmedabad- Gujarat		Registered for FRP JB's AND METAL JB's.
		Hoffman	BANGALORE		
		Rittal	BANGALORE		
		GE	INDIA		
11	FUSE	Bussmann	INDIA	III	
12	MCCB /SFU, MPCB, MCB with 'C' Characteristics, Power Contactor	Schenider	INDIA	III	
		Siemens	INDIA		
		ABB	INDIA		
		L&T	INDIA		

13	VFD	Schenider	INDIA	III	
		Allen Bradelly	INDIA		
		ABB	INDIA		
		YASKAWA	INDIA		
		Toshiba	INDIA		
		Siemens	INDIA		
14	Selector Switch	Schenider	INDIA	III	
		Siemens	INDIA		
		L&T	INDIA		
		Kaycee	INDIA		
15	Indication Lamps, PushButton, Aux. Contactor, Aux. Relays	Schenider	INDIA	III	
		Siemens	INDIA		
		ABB	INDIA		
		L&T	INDIA		
16	Timer	BCH	INDIA	III	
		EAPL	INDIA		
17	Control Transformer, Reactors	Kappa	BANGALORE	III	
18	Power Monitor Relay	TS International	BANGALORE	III	
19	TEMPERATURE ELEMENT	Minilec		III	
		GOA INSTRUMENTS INDUSTRIES PVT.LTD.,	Goa	II	
		DETRIVE INSTRUMENTATION & ELECTRONICS LTD.	WORLI, MUMBAI		
		PYRO ELECTRIC INSTRUMENTS GOA PVT.LTD.	GOA		
		TECHNO INSTRUMENTS	Gandhinagar-Gujarat		
		Tempsens Instrument (I) Pvt Ltd	UDAIPUR-RAJASTHAN		
		TM TECNOMATIC SPA	CREMONA--ITALY		
		TOSHNIWAL INDUSTRIES PVT. LTD.,	Ajmer,-Rajasthan		
		Thermal Instrument India Pvt. Ltd.	Mahim Mumbai		
		Baumer Technologies India Pvt. Ltd.	ANDHERI(E) MUMBAI		
20	TRANSMITTERS	ABB LIMITED	FARIDABAD-HARYANA	II	PRESSURE TRANSMITTER, DP TRANSMITTER and TEMP TRANSMITTER
		Endress + Hauser (India) Pvt. Ltd.,	New Delhi		For temperature transmitter only. , , INDIAN REPRESENTATIVE: CHEMTROL INDUSTRIES LTD.
		Moore Industries International Inc.	CALIFORNIA-USA		For Capacitance type only Only for capacitance Type Level Transmitter
		NIVO CONTROLS PVT. LTD.	Indore-M.P		
		Pune Techtrol Pvt. Ltd.	MIDC Bhosari, Pune-Maharashtra		
		EMERSON PROCESS MANAGEMENT (INDIA) PVT.LTD.	BANDRA EAST MUMBAI-MAHARASHTRA		
		SIEMENS LIMITED	Worli Mumbai-Maharashtra		
		SMART INSTRUMENTS LTD, BRAZIL	Agents: Digital Electronic Ltd. 74/11 'C' Cross Road MIDC Andheri (East) MUMBAI-MAHARASHTRA-INDIA Phone- 28208477 Pincode : 400093 Email : corp@delbby.rpgms.ems .vsnl.net.in		LD-301 & T-301 TRANSMITTER FROM M/S SMART EQUIPMENTS BRAZIL.
		SBEM PVT. LTD.	PUNE SATARA ROAD PUNE,-MAHARASHTRA		FOR CAPACITANCE TYPE.
		Honeywell Automation India Limited	NEW DELHI-DELHI-INDIA		
		TOSHNIWAL INDUSTRIES PVT. LTD.,	Ajmer,-Rajasthan,		
		V. AUTOMAT & INTRUMENTS (P) LTD.	NEW DELHI-		a)DISPLACEMENT TYPE TRANSMITTERS. b)PRESSURE AND DP TRANSMITTERS
		YOKOGAWA INDIA LIMITED,	HOSUR ROAD, BANGALORE,- KARNATAKA		

21	TEMPERATURE GAUGE	A.N. INSTRUMENTS PVT. LTD.	MARKETING DIVISION, 5th FLOOR, 59-B, CHOWRINGHEE ROAD, KOLKATA-WEST BENGAL	III	
		ASHCROFT INDIA PVT LTD.	Plot No.2306, Phase II, GIDC Chhatral Kalol-Gujarat		
		BUDENBERG GUAGE CO.LTD.	PO BOX-5, ALTRINCHAM CHESHIRE-UK-UK		
		FORBES MARSHALL (HYD) LTD.	PLOT NO.A-19/2, & T-4/2, IDA, NACHARAM, HYDERABAD-ANDHRA PRADESH-		
		GOA INSTRUMENTS INDUSTRIES PVT.LTD.,	D2/5, Mapusa Industrial Estate, Mapusa, Goa,-MAHARASHTRA		
		GOA THERMOSTATIC INSTRUMENTS PVT.LTD.	FLAT -B , GF, HILL CROWN APTS., COLLEGE ROAD, MAPUSA-GOA		
		GAUGE BOURDON INDIA PVT. LTD.	194/195, Gopi Tank Road, Off Pandurang Naik Marg, Mahim Mumbai -Maharashtra,		
		H.GURU INDUSTRIES	10 B, HO-CHI-MINH SARANI, KOLKATA-		
		H.GURU INSTRUMENTS (SOUTH INDIA) P. LTD	32,INDUSTRIAL SUBURB YESWANTHAPUR BANGALORE-KARNATAKA		
		Baumer Technologies India Pvt. Ltd.	36, DAMJI SHAMJI INDUSTRIAL COMPLEX, OFF.-MAHAKALI CAVES ROAD, ANDHERI(E) MUMBAI-Maharashtra		
22	PRESSURE GAUGE/ DIFF.PRESSURE GAUGE	A.N. INSTRUMENTS PVT. LTD.	MARKETING DIVISION, 5th FLOOR, 59-B, CHOWRINGHEE ROAD, KOLKATA-WEST BENGAL	III	
		ASHCROFT INDIA PVT LTD.	Plot No.2306, Phase II, GIDC Chhatral Kalol-Gujarat,-INDIA		
		BOSE PANDA INSTRUMENTS PVT.LTD.	44, Saheed Hemanta Kumar Bose, Sarani, Kolkata-West Bengal-India		
		FORBES MARSHALL (HYD) LTD.	PLOT NO.A-19/2, & T-4/2, IDA, NACHARAM, HYDERABAD-ANDHRA PRADESH		
		GAUGE BOURDON INDIA PVT. LTD.	194/195, Gopi Tank Road, Off Pandurang Naik Marg, Mahim Mumbai -Maharashtra,		
		H.GURU INDUSTRIES	10 B, HO-CHI-MINH SARANI, KOLKATA-WEST BENGAL		
		H.GURU INSTRUMENTS (SOUTH INDIA) P. LTD	32,INDUSTRIAL SUBURB YESWANTHAPUR		
		Baumer Technologies India Pvt. Ltd.	36, DAMJI SHAMJI INDUSTRIAL COMPLEX, OFF.-MAHAKALI CAVES ROAD, ANDHERI(E) MUMBAI-Maharashtra		
23	Pressure/DP/Vacuum Switch	Indfoss	Ghaziabad	II	NTPC approved sub-vendors(No PEM-C & I list is avl in PMD)
		SOR	USA		
		Dressor	USA		
		Delta control	UK		
		Trafag	Ranipet		
		GIC(Gauges Bourdon)	Parvel		
		ASHCROFT INDIA PVT LTD.	USA/GERMANY		
		Switzer	Chennai		
24	Level Switch (Float/Displacer)	DK Instruments	Kolkata	III	NTPC approved sub-vendors
		Levcon	Kolkata		
		Sigma	Mumbai		
		V-Automat	New Delhi		
		SBEM	Pune		
		Flow Star	Faridabad		

25	Level Indicator	Flow Star	Faridabad	III	NTPC approved sub-vendors (No PEM-C & I list is avl in PMD)
		Scientific Devices	Mumbai		
		Gauges Bourden	Parvel		
		SBEM	Pune		
		Pune Techrol	Pune		
		Levcon	Kolkata		
		Sigma	Mumbai		
		V-Automat	New Delhi		
26	DC Lead Acid / Ni-Cd Batteries	DK Instruments	Kolkata	III	Ni-Cd batteries only
		AMCO SAFT INDIA LTD	ABBANAKUPPE WORKS HEBBAL-BELLARY- JAKKUR ROAD BANGALORE-KARNATAKA- INDIA		Lead Acid batteries only.
		EXIDE INDUSTRIES LTD	8/42, Kirti Nagar Industrial Area, NEW DELHI		Ni/Cd and TUBULAR TYPE for Lead acid
		HBL POWER SYSTEMS LTD	8-2-601,ROAD NO.10, BANJARA HILLS, HYDERABAD-ANDHRA PRADESH		
27	DC BATTERY CHARGER	HOPPECKE BATTERIEN GMBH & CO.KG,	BONTKIRCHENER STRASSE 1, D-59929 BRILON HOPPECKE, -- GERMANY,	III	
		AMARA RAJA POWER SYSTEMS LIMITED	TIRUPTI, ANDHRA PRADESH TRIPUTI- TAMIL NADU-INDIA Phone- +91-877-2285561 Pincode : Email : amararaja@amararaja.co. in		
		CHHABI ELECTRICALS PVT.LTD.	MIDC , JALGAON- MAHARASHTRA		
		CHLORIDE POWER SYSTEMS & SOLUTIONS LIMITED	GARIAHAT ROAD KOLKATA-WEST BENGAL- INDIA		
		DUBAS ENGG PVT LTD	347/1A , BILEKAHALLI , 6TH CROSS 2ND STAGE,B.T.M LAYOUT OFF-BANNERGHATTA ROAD BANGALORE		
		HBL POWER SYSTEMS LTD	ROAD NO.10, BANJARA HILLS, HYDERABAD- ANDHRA PRADESH- INDIA		
		JEMA ENERGY	Paseo del Circuito 10, Lasarte-Oria--SPAIN		For Static SCR Type Full Wave fully Control type
		MASS-TECH CONTROLS PVT.LTD.	2/7 , MEGHAL INDL.ESATE DEVIDAYAL ROAD MULUND MUMBAI		
		STATCON POWER CONTROLS LTD	A-34 , SECTOR-59 NOIDA-UTTAR PRADESH		APPROVED WORKS is , Khasara No. -509, Bama Road, Chhijarsi, Kullich Nagar, Pilkhuwa, Hapur, Ghaziabad, U.P. India- 245304

28	INSTRUMENT FITTINGS	AURA INCORPORATED	Delhi	III	
		Astec Valves & Fittings Pvt. Ltd.,	Mumbai		
		Arya Crafts & Engineering Pvt. Ltd.	Mumbai		
		Comfit & Valve Pvt. Ltd.	Nandasan		
		FLUIDFIT ENGINEERS PVT. LTD.	Mumbai		
		Fluid Controls Pvt. Ltd.	Mumbai		
		HP VALVES & FITTINGS INDIA PVT. LTD.	Chennai		
		PRECISION ENGINEERING INDUSTRIES	Mumbai		
		Panam Engineers,	Mumbai		
		Perfect Instrumentation Control (India) Pvt. Ltd.	Mumbai		
		VIKAS INDUSTRIAL PRODUCTS	Noida		
		Cords Cable	Bhiwadi		
		Radiant Cables	Hyderabad		
29	Control / Power Cable	PolyCab	Daman	I	
		KEI	Bhiwadi		
		Nicco	Kolkata		
		Ravin Cables	Pune		
		Incab	Pune		
		HVPL	Faridabad		
		Torrent cable	Nadiad		
		Havells	Alwar		
		Paramount	Khushkhera		
		SRI Ram Cables	Bhiwadi		
		Thermocables	Hyderabad		
		Torrent cable	Nadiad		
		Universal Cables	SATNA		
		Gemscab	Bhiwadi		
		Delton	Faridabad		
30	Cable Glands	SUNIL& COMPANY	KOLKATA	III	
		ARUP ENGG	KOLKATA		
		COMMET	MUMBAI		
		QUALITY PRECISION	KOLKATA		
31	cable lugs	Dowells	Mumbai	III	
		Billet 3D	Valsad		
		Chetna	Nasik		Galvanisation to be done at M/s Eros Infrastructure Pvt. Ltd. or from BHEL-PEM approved galvanizers.
32	Terminal Block	Phoenix	INDIA	III	
		Wago	INDIA		Galvanisation to be done from BHEL-
		Connectwel	INDIA		

33	Cable trays and its accessories	EROS METAL WORKS (P) LTD.	Nagpur	III	Galvanizing Unit located at Phas-3, E-11/1, MIDC, Pune ,
		INDUSTRIAL PERFORATION (I) PVT.LTD.	Kolkata		
		INDIANA GRATINGS PVT. LTD.	Mumbai		Galvanizing to be done from BHEL-PEM approved galvanizers.
		INDIA ELECTRICALS SYNDICATE	Kolkata		Galvanising can be done from their own galvanising plant or PEM approved galvanising units
		INDMARK FORMTECH PVT. LTD.	Pune		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		JAMNA METAL COMPANY	Delhi		
		Maheshwari Electrical Mfrs. Pvt. Ltd.,	Noida		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		NAMDHARI INDUSTRIAL TRADERS PVT. LTD	Ludhiana		
		PREMIER POWER PRODUCTS (CAL) PVT. LTD.	Kolkata		its galvanization plant M/s Galbro Ispat Galvanizers Pvt. Ltd.
					Galvanisation to be done at its own plant or from BHEL-PEM approved additional works at Raipur including galvanizing plant.
		PATNY SYSTEMS (P) LTD	SEUNDRABAD		
					MSED-MICRO; Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers. remarks changed w.e.f. 03.07.2014; , Additional Works at "Sankrail Industrial park, Bhagabatipur Mauja, Dhulagarh, Howrah-711302" approved w.e.f. 08.12.2014 ,
		PARMAR METALS PVT.LTD.	RAJKOT		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.,
		PASSIVE INFRA PROJECTS PVT. LTD.	Delhi		
					Approved in permanent category for fabrication of Cable trays & Acc. only. Galvanizing to be done from BHEL approved galvanizers. , ,
		PENTAX FERRO INCORPORATE	Mumbai		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		RUKMANI ELECTRICAL & COMPONENTS PVT LTD	Kolkata		
		RATAN PROJECTS & ENGINEERING CO. PVT.LTD.	Kolkata		
		RABI ENGINEERING WORKS PVT. LTD.	Kolkata		
		SARAL INDUSTRIES	Rae Bareilly		
34	CABLE TRAY SUPPORT SYSTEM -BOLTABLE	UNITECH FABRICATORS and ENGINEERS PVT LTD	Kolkata	III	
		VINFAB ENGINEERS INDIA PVT. LTD.	Mumbai		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		AM-TECH ENGG.SERVICES	Pune		
		INDUSTRIAL PERFORATION (I) PVT.LTD.	Kolkata		
		INDMARK FORMTECH PVT. LTD.	Pune		WORKS ADDRESSES ARE APPLICABLE FOR MANUFACTURING AND GALVANISING.
		PREMIER POWER PRODUCTS (CAL) PVT. LTD.	Kolkata		
		RATAN PROJECTS & ENGINEERING CO. PVT.LTD.	Kolkata		Galvanizing Unit located at Phas-3, E-11/1, MIDC, Pune ,
		STEELITE ENGINEERING	Mumbai		
		Associated Power Structures Pvt. Ltd.	G. I. D. C., Makarpura, Vadodara-Gujarat		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		INDUSTRIAL PERFORATION	DUM DUM KOLKATA-		
		INDMARK FORMTECH PVT. LTD.	MIDC BHOSARI PUNE-MAHARASHTRA		
		JAMNA METAL COMPANY	DSIDC, NARLA INDL. AREA DELHI		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		PREMIER POWER PRODUCTS	Kolkata,-West Bengal		Galvanisation to be done at its own

35	CABLE TRAY SUPPORT SYSTEM-WELDED(GALV)	PATNY SYSTEMS (P) LTD	SARDAR PATEL ROAD SEUNDRABAD	III	Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		PASSIVE INFRA PROJECTS PVT. LTD.	VAISHALI, PITAMPURA Delhi-		Registered in permanent category along with galvanizer M/s Saral Projects and Processors , ,
		RUKMANI ELECTRICAL & COMPONENTS PVT LTD	KOLKATA-WEST BENGAL- INDIA		Galvanisation to be done at its own plant or from BHEL-PEM approved galvanizers.
		RATAN PROJECTS & ENGINEERING CO. PVT.LTD.	P.K. TAGORE STREET, MAIN BUILDING KOLKATA-WEST BENGAL		
		RABI ENGINEERING WORKS PVT. LTD.	R.N. GUHA ROAD, DUM DUM, KOLKATA-WEST BENGAL		
		SARAL INDUSTRIES	Industrial Area-1 Sultanpur Road Rae Bareilly-Uttar Pradesh		
		UNITECH FABRICATORS and ENGINEERS PVT LTD	M.B.RAOD , BIRATI KALABAGAN KOLKATA		HEAT SHRINKABLE TYPE ONLY.
36	CABLE TRAY SUPPORT SYSTEM-WELDED(UNGALV)	RASHTRIYA ISPAT NIGAM LIMITED	AMBAWADI AHMEDABAD-	III	
		STEEL AUTHORITY OF INDIA LTD.	ISPAT BHAWAN LODI ROAD NEW DELHI-		
37	CABLE TERM.& JOINT KITS	3M Electro and Communication India P.Ltd	Rajendra Place, DELHI	III	
		HARI CONSOLIDATED PVT.LTD.,NEW DELHI	JHANDEWALAN, NEW DELHI-Delhi		
		RAYCHEM RPG PRIVATE LIMITED	JANAKPURI NEW DELHI		
		YAMUNA CABLE ACCESSORIES PVT. LTD.	Ambala Road, Jagadhri Yamunanagar-Haryana		
38	MICRO-PROCESSOR / MICRO-CONTROLLER	ALLEN BRADLY SIEMENS	BANGALORE BANGALORE	II	
		GE	BANGALORE		
		SCHENIDER	BANGALORE		
39	Battery	EXIDE	Kolkata	III	
		HBL Power System	Hyderabad		
		AMAR RAJA	Tirupati		
		Amco saft	Bangalore		
		HBL Power System	Hyderabad		
		SAFT	France/Sweden		

C	BOUGHTOUT ITEM (MECHANICAL)				
1	BUCKET ELEVATOR CHAIN	HEKO GMBH	GERMANY	II	
		Rud	GERMANY		
		Aumund	Chennai		for complete bucket elevator
2	BUCKET ELEVATOR SPROCKETS	HEKO GMBH	GERMANY	II	
		Rud	GERMANY		
		Aumund	Chennai		for complete bucket elevator
3	Knife Gate/Plate Valve (H/W Operated & Cylinder Optd)	DEZURIKK	CHENNAI	I	
			MUMBAI		upto 400NB 150 class
		FOURESS			
		VASS	CHENNAI		
		ORBINOX	COIMBATORE		
		JAASH	INDORE		upto 50 NB 800 Class: 350NB 150 class
		Precision Engg	Nasik		
		Microfinish Valves Ltd	Hubli		upto 50NB 800 class
		Weir BDK engg Industries	NEW DELHI		
		Flow chem. Industries	Ahemdabad		
		Audco	Chennai		(1) BALL VALVES: FCS/FSS - 1/2" to 2" #800 & CCS/CSS - 2.1/2" to 4" #150 (2) BALL VALVES: GUN METAL VALVES SIZE 15 NB TO 80 NB - UPTO PN16.0
		Akay India	Hubli		
		A V Valves	Agra		Size up to 2" & #800 with MOC as FCS & FSS and for size from 65 NB to 150 NB & #150 with MOC as CCS and CSS.
		Asian Industrial valves & Instruments Ltd.	Chennai		Steel ball Valves upto 50NB, #800 and 65NB to 150NB. #150
		ATAM Valves	Jalandhar		
		GM ENGINEERING	Rajkot		CAST STEEL UPTO 200 MM, CLASS 150/300.

4	Ball Valve	Hawa Valves (India) Pvt. Ltd.	Navi Mumbai	I	
		INTERVALVE (INDIA) LTD.	Pune		FOR CARBON STEEL/STAINLESS STEEL UPTO SIZE 200NB.
		NILON VALVES PRIVATE LIMITED	Ahmedabad		
		LEADER VALVES LTD.	Jalandhar		FORGED CARBON & ALLOY STEEL BALL VALVES ,SCREWED TYPE BALL VALVES RATING 800 , SIZES UPTO 50 & CC& ALLOY STEEL BALL VALVES RATING 150 , SIZES 65 TO 200 FLANGED TYPE.
		DEMBLA VALVES LTD.	Thane		
		SURYA VALVES AND INSTRUMENTS MFG CO.	Chennai		
		UNIFLOW	Chennai		
		VALTECH INDUSTRIES	Mumbai		
		VAAS AUTOMATION	NEW DELHI		
		Belgaum Aqua Valve	Belgaum		
5	Metallic Expansion Bellow(Metallic)	METALLIC BELLOWS	CHENNAI	II	UPTO 20 TONNES
6	Rupture Disc	BS & B SAFETY SYSTEM	CHENNAI	II	
7	Electric Hoist	ARMSEL MHE PVT. LTD	Bangalore	II	CAPACITY UPTO 10 TONS. BOIs BHEL APP.SUB-VENDORS.
		Alpha Services	Bhiwadi		
		CONSOLIDATED HOISTS PVT LTD	Pune		
		CENTURY CRANE ENGINEERS PVT. LTD.	Faridabad		
		EDDY CRANES PVT. LTD.	Mumbai		
		Grip Engineers Pvt. Ltd.,	Faridabad		
		GLOBAL TECHNOLOGIES	Hydrabad		
		HERCULES HOISTS LTD.	Khalapur		UPTO 25.0 T CAPACITY.
		LIFTING EQUIPMENTS and ACCESSORIES	Delhi		
		Mangla Hoists Pvt Ltd	Delhi		
		MEEKA MACHINERY PVT. LTD.	Ahemdabad		UPTO 15 TONNES.
		REVA INDUSTRIES LTD.	Faridabad		
		ROCKWELL HOISTO CRANES PVT. LTD.	Bahadurgarh		
		SAFEX ENERGY PVT. LTD.	Ahemdabad		
		TUOBRO FURGUSON (INDIA) PVT LTD	Kolkata		
		TECHNO INDUSTRIES	Ahemdabad		
8	Mono Rail Hoist / Chain Pulley Block	HERCULES (INDEF)	MUMBAI	II	
		LEAP	NEW DELHI		
		TRACTEL	FARIDABAD		
		LIFTING EQUIPMENTS & ACESSORIES	DELHI		
9	Horzional/Vertical Centrifugal Pump	KBL	Kirolskarwadi	I	
		M&P	Pune		
		Flowmore	Ghaziabad		
		Sulzer pumps india ltd.	Navi mumbai		
		Worthington	Ghaziabad		
		Bharat pumps & compressors ltd	Allahabad		
		Flowserve India Controls Pvt. Ltd.	Coimbatore		
		Jyoti Ltd.	Vadodara		
	Vertical Centrifugal Pump	Kishore Pump	Pune		
		Sam Turbo	Coimbatore		
		KSB	Pune		
		Best and Crompton	Chennai		
		Voltas	Mumbai		
		V-Flo Pumps & Systems Co. Ltd.,	Beijing, China		

10	Pneumatic Actuator/Cylinder(Metallic)	SCHRADDER	MUMBAI	II	
		NUCON	HYDERABAD		
		Rotex	MUMBAI		
		VAAS	CHENNAI		
11	Fittings	M.S. Fittings	Kolkata	II	
		Metal lloyds	Mumbai		
		True Forge	Faridabad		
		Tube Products	Baroda		
		NL Hazra	Kolkata		
		Gujrat Infra Pipes	Baroda		
		Edwards	USA		
		Pipefit Engineers	Baroda		
		Siddarth & Gautam	Faridabad		
12	MS/GI ERW Pipes	EBY	Mumbai		Upto 400 NB ERW Pipes as per IS 3589 and SAW as per IS 3589
		SAIL	Rourkela	II	NTPC approved sub-vendors and BHEL list
		Jindal	Ghazibad/Hissar	I	Upto 300 NB ERW Pipes as per IS 1239/3589
		Surya Roshni	Bahadur Garh	I	Upto 400 NB ERW Pipes as per IS 1239/3589 and SAW
		TATA Tube	Jamshedpur	II	Upto 150 NB ERW Pipes as per IS 1239
		PSL	Chennai/Vizag/Kut	I	Spiral Weld SAW as per IS 3589
		Lalit Profile	Thane	I	Spiral weld SAW as per IS 3589
		Samshi Pipes Industri	Vadodara	I	Spiral Weld SAW as per IS 3589
		Mukut Pipes	Rajpura	I	Longitudinal SAW (Single side weld) as per IS 3589
		Indus Tubes	G B Nagar	I	Upto 300 NB ERW Pipes as per IS 1239/3589
		Mann Ind	Indore	I	Spiral weld SAW as per IS 3589
		Surendra Engg	Rajpura	I	Spiral Weld SAW as per IS 3589
		Pratibha Pipes & Struc	Thane	I	Spiral weld SAW as per IS 3589
		JCO Gas Pipe	Chindwara	I	Spiral Weld SAW as per IS 3589
		Nukat Tanks and Vess	Tarapur		Longitudinal SAW (Single side weld) as per IS 3589
		DADU Pipes	Sikrandrabad	I	Upto 300 NB ERW Pipes as per IS 1239/3589
		Good Luck Tubes	Sikandrabad	I	
		Advance Steel Tubes	Sahibabad	I	
		Bihar Tubes	Sikandrabad	I	
		Hi Tech Pipes	Sikandrabad	I	
		Ratnamani	Kutch/Ahmedabad	I	Upto 400 NB ERW Pipes as per IS 3589 and SAW as per IS 3589
		Maharashtra Seamless	Raigad	I	200-500 NB ERW Pipes as per IS 3589
		Welspun	Anjar/Bharuch		1239/3589 and SAW as per IS 3589
13	Seamless Pipes	ISMT	Ahmednagar/Barar	III	
		Maharashtra Seamless	Raigad		
14	S.S. Pipes (For small Quantity 500 m)	REMI	Mumbai	III	
		Ratmani	Ahmedabad		
		Apex Tubes	Behror		
		Choksi	Ahmedabad		
15	Steel Plate, Structural Steel and section for Fire water storage tank	SAIL	ANY PLANT	III	For small quantity: Authorised stockist/ dealer of approved listed makes for which TCs/IRs will be furnished
		Essar Steel			
		TISCO			
		RINL			
		Jindal			
		Lloyd			
		Ispat			

		Indian Iron & Steel Co. Ltd			
16	Bag Filter	ORIENT FAN (FORMERLY - ACCO)	KOLKATA	II	
		THERMAX	PUNE		
		FLAKT	MUMBAI		
		BATLIBOI	DELHI		
		DCL	HYDERABAD		
17	GEARED MOTOR	PBL	ANAND - V.V NAGAR	III	
		PREMIUM	PUNE		
		BONFIGLIOLI	CHENNAI		
		SEW	Germany		
		IC	AURANGABAD		
18	CI Gate/ Globe/NRV/SRV	H.Sarkar	Howrah	III	SIZE UPTO 300NB & PR.CL.
		A.V. VALVES LTD	Agra		
		Leader	Jalandhar		
		SURYA VALVES AND INSTR	Chennai		FOR GV UPTO 450NB, GLV UPTO 300NB AND CHECK VALVES UPTO 350NB.
					(1) CARBON IRON GATE VALVES: 65 NB TO 450 NB (UPTO PN-16.0) (2) CARBON IRON GLOBE VALVES & NON RETURN VALVES: 65 NB TO 150 NB (UPTO PN-16.0)
		ATAM VALVES PVT. LTD.	JALANDHAR		1. CI Gate- CL125 & up to 900 NB, 2. CI Globe- CL125 & up to 450 NB, 3. CI SCNRV- CL125 & up to 600 NB.
		FLUIDLINE VALVES COMPA	Mumbai		
		G.M. DALUI AND SONS PVT.	Howrah		
19	GM valve	KBL	Kondhapuri	III	Additionally approved for FM approved Gate valve 50-250 NB
		Bankim	Kolkata		
		VENUS PUMPS AND ENGG.	Kolkata		1) CI GATE VALVE SIZES 65NB-800NB ,2) CI GLOBE VALVE FOR SIZES 65NB-400 NB AND 3) CI SCNRV FOR SIZES 65 NB -600 NB.
20	GEAR BOX	A.V. VALVES LTD	Agra	III	GUN METAL GATE/GLOBE/NRV: 15 NB TO 50 NB (UPTO PN-16.0) & 15 NB TO 50 NB (UPTO #150)
		ATAM VALVES PVT. LTD.	Mumbai		
		Leader	Jalandhar		
					GUN METAL SCREWED END TYPE , SCREWED IN BONNET , OUT SIDE SCREW & YOKE TPE , PN 16 , SIZES UPTO 50.
		VALTECH INDUSTRIES			UP TO SIZE 100-NB ONLY.
		SANT VALVES PVT. LTD.	Jalandhar	III	
		PBL	ANAND - V.V NAGAR		
		SHANTHI	COIMBATORE		
		PREMIUM	PUNE		
		BONFIGLIOLI	CHENNAI		
		IC	AURANGABAD		
		FLENDER			

21	COUPLINGS	ELECON	ANAND - V.V NAGAR	III	
		FENNER	CHENNAI		
		FLUIDOMAT	KOLKATA		
22	BEARINGS	FAG	INDIA	III	
		SKF	INDIA		
		NTN	INDIA		
23	BEARINGS (B/E BOOT SECTION)	HEKO	GERMANY	III	
24	Paint	Asian Paints (I) Ltd.	Mumbai	III	
		Berger Paints India Ltd	Delhi		
		Goodlass Nerolac	Mumbai		
		Jenson & Nicholson (I) Ltd	Gurgaon		
		CDC carboline (I) Ltd.	Delhi		
		Shalimar Paints Ltd.	Gurgaon		
		Addison Paints Ltd	Chennai		
		Grand Polycoat	Mumbai		
		Bombay Paints	Mumbai		
		Jotun Paints	Pune		
		Hemple Paints	Singapore		
25	PLUMMER BLOCKS	WINCO	BANGALORE	III	
		MASTA	AHMEDABAD		
		COSMO	MUMBAI		
26	TRANSMISSION CHAIN	RENOLD	KARUR	III	
27	MAINTENANCE TOOLS BOX	BRANDED		III	
INSPECTION CATEGORY TYPE					
CAT-I	The QAP for these items shall be approved by customer and joint inspection shall be done by Customer & BHEL as per approved QAP.				
CAT-II	The QAP/Check List for these items shall be approved by BHEL and inspection shall be done by BHEL as per approved QAP/Check List. Approved QAP/Check list shall be given for Information to Customer.				
CAT-III	These shall be COC (Certificate of Compliance) items. Only verification Test Certificates shall be done by BHEL.				
NOTE					
	1) Bidder to note that Make of various items and inspection category indicated against each item is tantetive and shall subject to approval of BHEL / Customer during detail engineering stage without any commercial implication at contract stage				
	2) In case of imported components, makes of BOI shall be subject to BHEL/ customer approval during detail engineering stage without any commercial implication at contract stage.				