



**GADARWARA STPP
(2X800 MW)
COMPRESSED AIR SYSTEM**

SPECIFICATION NO. PE-TS-395-555-A001

AMENDMENT No. 1

DATE: 30.01.2014

SHEET 1 OF 2

GADARWARA STPP

(2x800 MW)

AMENDMENT No. 1

(TECH SPEC No. PE-TS-395-555-A001)

COMPRESSED AIR SYSTEM



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SHEET 2 OF 2

**AMENDMENT No. 1 TO THE TECHNICAL SPECIFICATION PE-TS-395-555-A001
COMPRESSED AIR SYSTEM OF GADARWARA STPP (2x800 MW)**

1.0 ADDITION OF CLAUSES

1.1 COMPRESSOR HOUSE LAYOUT

Compressor house layout (BHEL Drg. No. PE-395-555-SK01-00) is enclosed in the technical specification. Compressor House Layout is confirmed for bidder's compliance.

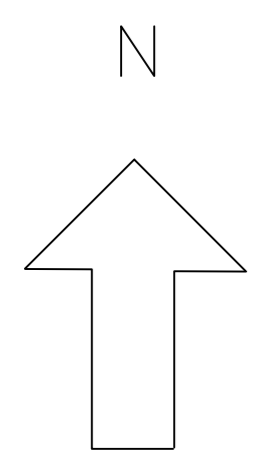
1.2 ELECTRICAL LOAD LIST

Electrical load list is enclosed in the technical specification for bidder's compliance as under.

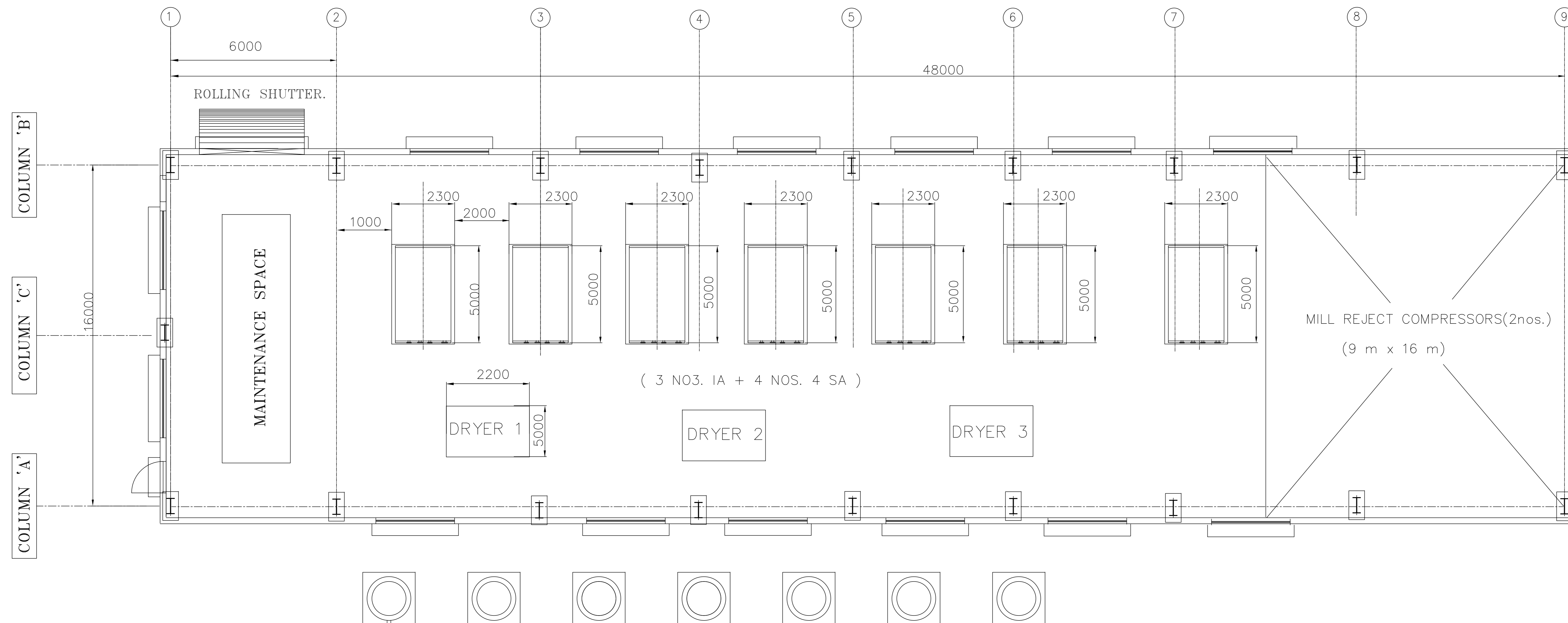
- Bidder to confirm that the system provided by them would be catered by the loads considered by BHEL as per enclosed Electrical load. In case there is any variation, the same should be clearly stated in the technical offer. No changes would be admissible during detailed engineering stage.
- Bidder to note that for the system being supplied by them, only the above loads will be provided. In case any other load is required the same would be derived / multiplied by bidder on their own from these feeders only.

1.3 GUIDELINES FOR ALLOCATION OF PRICES IN BBU

Guidelines for allocating price for individual component for BBU purpose during detailed engineering for payment purpose is furnished as per Annexure-I. Bidder to confirm compliance.



COMPRESSOR HOUSE LAYOUT



NOTES :-

- 1) ALL DIMENSIONS ARE IN MM.
- 2) HEAVIEST COMPONENT TO BE LIFTED: 12.0T
- 3) FOR EXACT LOCATION PLEASE REFER PLOT PLAN DRG 9572-999-POC-F-001
- 4) AIR COMPRESSOR AND DRYER SIZES SHOWN IN THE DRG ARE INDICATIVE ONLY. BIDDER TO CHECK SPACE REQUIREMENT AS PER EQUIPMENT SIZES BEING OFFERED BY THEM.
- 5) BIDDER TO CONFIRM THAT SPACE PROVIDED FOR COMPRESSOR ,ADP AND AIR RECEIVER ARE IN ORDER AND NO ADDITIONAL SPACE WOULD BE REQUIRED DURING DETAILED ENGINEERING STAGE.



NATIONAL THERMAL POWER CORPORATION LTD.
GADARWARA SUPER THERMAL POWER PROJECT
STAGE-I (2 x 800MW) UNIT # 1 & 2



BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

JOB NO. 395				
STATUS CONTRACT				
DISTRIBUTION				
REV.	DATE	ALTD	CHD	APPD

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DEPT CODE	NAME	SIGN	DATE
DRN	REKHA KUMARI		16.01.2014
DESN	SAYAN ROY		16.01.2014
CHD	HARISH KUMAR		16.01.2014
APPD	S SRIVASTAVA		16.01.2014

TITLE		COMPRESSOR HOUSE LAYOUT	
DEPT.	SCALE 1:150	DRAWING NO.	
SIGN		PE-DG-395-555-SK01	
SHEET 1 OF 1		REV. 00	

(TENTATIVE)

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)		RUNNING	STANDBY								SIZE CODE	NOs				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Instrument Air Compressor	500			2	1	C	U		C		Compressor House							
Service Air Compressor	500			2	2	C	U		C		Compressor House							
Instrument Air Compressor Control Panel	3.0			2	1	D	S		C		Compressor House							
Service air Compressor Control Panel	3.0			2	2	D	S		C		Compressor House							
Air Dryer	2.0			2	1	D	S		C		Compressor House							
AUTO DRAIN TRAP	0.3			10		E	S		I		7 nos. feeders in compressor house. 2 nos. feeders in TG bldg at EL.0.0 M in B-C bay (one for each unit) & 1 no. feeder near DM plant bldg.							
Electrical Heater for heating of instrument air (if required) to obtain dew point (-40deg C)	50			2	1	D	S		C		Compressor House							

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 (cc): 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.	395	ORIGINATING AGENCY		PEM (ELECTRICAL)	
PROJECT TITLE	2x800 MW GADARWARA STPP	NAME		DATA FILLED UP ON	
SYSTEM / S		SIGN.		DATA ENTERED ON	
DEPTT. / SECTION		SHEET 1 OF 1	REV. 00	DE'S SIGN. & DATE	

2X800 MW GADARWARA STPP STAGE-I (SG Package)
COMPRESSED AIR SYSTEM
GUIDELINE FOR ALLOCATION OF PRICE IN BBU

Sl. No.	DESCRIPTION	Qty.	Unit	Percentage value of Total Price (Supply + E&C)
1.0	BREAK -UP OF MAIN SUPPLY PRICE (EXCLUDING MANDATORY SPARES PRICE) FOR MAJOR COMPONENTS OF COMPRESSED AIR SYSTEM			
1.1	Instrument Air & Plant air Compressor (oil free Screw / Centrifugal type) a/w vibration monitoring system (as applicable)	1	Lot	60% OF THE TOTAL EX-WORKS SUPPLY PRICE
1.2	Air Dryer (HOC Type)	1	Lot	9.5% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.3	Air Receivers	1	Lot	3% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.4	Piping & Valves	1	Lot	2.5% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.5	Field instruments as specified	1	Lot	2% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.6	Temperature transmitters as specified(for RTD & BTD element)	1	Lot	0.6% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.7	Control cable from Compressor House to HT Switch Gear & Signal cable between Compressor House & DDCMIS (SG C&I)	1	Lot	1.2% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.8	Miscellaneous items including commissioning spares, E&C Spares, requirements as per site condition	1	Lot	1.2% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
1.9	E&C Charges	1	Lot	20% OF THE TOTAL EX-WORKS SUPPLY AND E&C PRICE
2.0	Mandatory Spares	1	Lot	Actual price