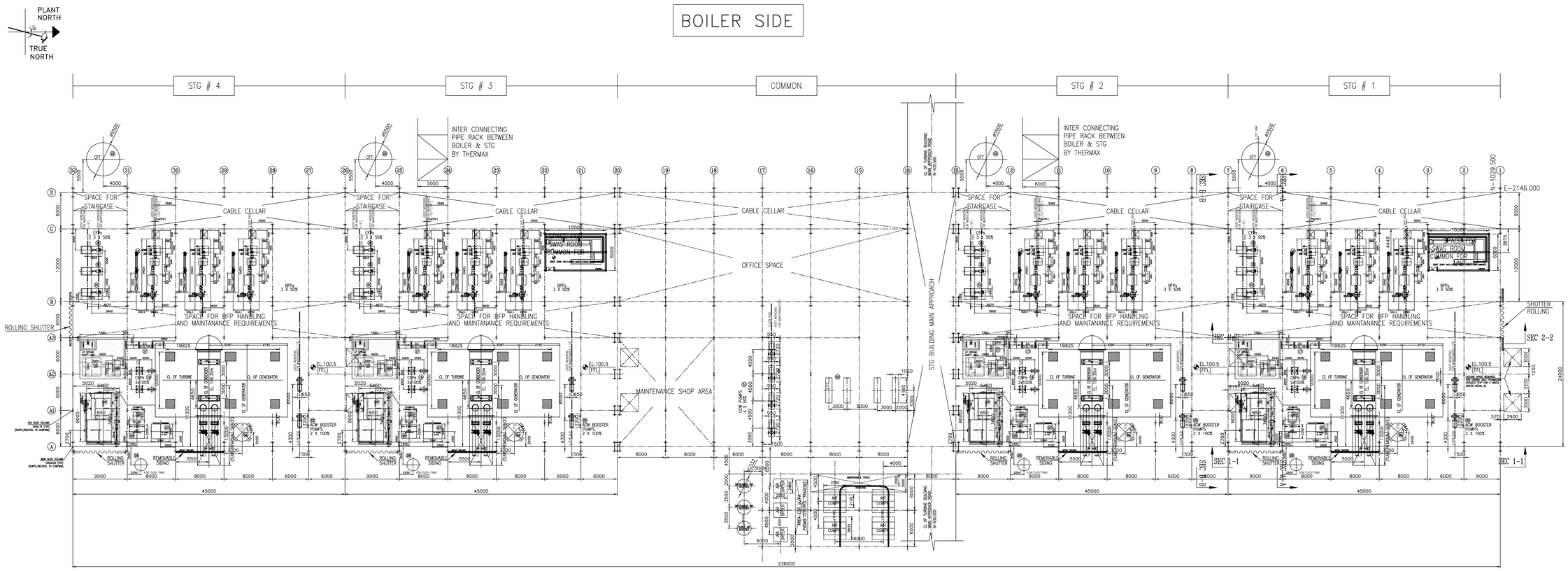
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

SHT. 01 OF 04 DRG. NO. 0-381-01-01529

BOILER SIDE



COOLING WATER SIDE | TRANSFORMER YARD

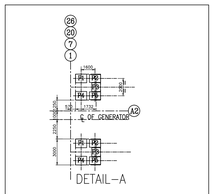
PLAN AT GROUND FLOOR EL.100.5m (FFL)

NOTES:

1) ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2) EQUIPMENT DIMENSIONS ARE TENTATIVE, WHICH SHALL BE CONFIRMED AFTER DETAIL ENGINEERING.
3) PIPING INTERFACE AREAS BETWEEN BHEL AND RUPPL/BECHTEL/THERMAX SHALL BE AS GIVEN BELOW. (TO BE FINALISED)

PIPING TERMINAL POINT AREA	TERMINAL POINTS	GRID REFERENCE
PTPA-01	1) MAIN STEAM-1 FROM BOILER HEADER (TP-77) 2) FEED WATER-1 TO BOILER HEADER (TP-148) 3) BOILER FLASH TANK VENT-1 FROM BOILER (TP-199) 4) BOILER STARTUP STEAM BYPASS FROM BOILER (TP-79) 5) FEED WATER SUPPLY FOR LIMESTONE DRYING (BY BECHTEL) 6) CONDENSATE RETURN FROM LIMESTONE DRYING (BY BECHTEL) 7) CLOSED CIRCUIT COOLING WATER SUPPLY TO BOILER AUXILIARIES (TP-80) 8) CLOSED CIRCUIT COOLING WATER RETURN FROM BOILER AUXILIARIES (TP-81) 9) POTABLE WATER (TP-9) 10) SERVICE AIR (TP-4) 11) INSTRUMENT AIR (TP-5) 12) SERVICE WATER (TP-201) 13) BOILER FILL (TP-6)	BETWEEN GRID 11 & 12 1M INSIDE STG BUILDING ALONG ROW-D ABOVE GROUND
PTPA-02	1) MAIN STEAM-2 FROM BOILER HEADER (TP-78) 2) FEED WATER-2 TO BOILER HEADER (TP-149) 3) BOILER FLASH TANK VENT-2 FROM BOILER (TP-200)	BETWEEN GRID 24 & 25 1M INSIDE STG BUILDING ALONG ROW-D ABOVE GROUND
PTPA-03	1) CIRCULATING WATER SUPPLY TO UNIT-1/2/3/4 CONDENSER (TP-119 & 120/TP-123 & 124/TP-127 & 128/TP-131 & 132) 2) CIRCULATING WATER RETURN FROM UNIT-1/2/3/4 CONDENSER (TP-121 & 122/TP-125 & 126/TP-129 & 130/TP-133 & 134)	BETWEEN GRID 3&5/9&11/22&24/28&30 ALONG ROW-A ABOVE GROUND
PTPA-04	1) CONDENSATE RETURN FROM PROCESS TO UNIT-1/2/3/4 CFT (TP-168/TP-169/TP-170/TP-171)	AT CFT NOZZLE OF EACH UNIT
PTPA-05	1) CONDENSATE FILL TO UNIT-1/2/3/4 CONDENSER (TP-172/TP-173/TP-174/TP-175) 2) CONDENSATE RETURN FROM LIMESTONE DRYER TO UNIT-1/2/3/4 CONDENSER (TP-160/TP-161/TP-162/TP-163)	AT CONDENSER NOZZLE OF EACH UNIT

4) MINIMUM CRANE HOOK ELEVATION SHALL BE 122.25 M.
5) WEIGHT OF SINGLE HEAVIEST PIECE FOR MAINTENANCE IS 55 TONN.
6) ELEVATION 0.00 CORRESPONDS TO FINISHED GROUND FLOOR LEVEL OF STG BUILDING WHICH CORRESPONDS TO SITE RL EL.+100.5M
7) DEAERATOR FLOOR ELEVATION IS 118.5 m.(BECHTEL TO CONFIRM THE SAME)
8) LAYDOWN & MAINTENANCE SPACE IS INDICATED ON THE OPERATING FLOOR COMMON AREA WITH THE ASSUMPTION THAT 2 UNITS ARE TAKEN FOR MAINTENANCE AT THE SAME TIME.
9) REVISED EQUIPMENT LOADS INDICATED BECHTEL TO CONSIDER THE SAME.
10) HATCH PATTERN FOR BUND AREA REQUIREMENT.
11) CENTER LINE OF SKID DIMENSIONS MENTIONED IN THIS DRAWING MATCHES WITH THE CENTER LINE DIMENSION OF EQUIPMENT FOUNDATIONS .FOR FOUNDATION DIMENSIONS REFER TO THE AUXILIARY EQUIPMENT FOUNDATION DRAWINGS .
12) FOR FLOOR OPENING REQUIREMENTS OF THE ELECTRICAL ,REFER RESPECTIVE DRAWING .
13) FOR FLOOR OPENING REQUIREMENTS OF THE PIPING & EQUIPMENTS ,REFER RESPECTIVE DRAWING .



EQUIPMENT LIST (PER UNIT)

SL NO.	EQUIPMENT	QTY (Nos)	EMPTY WT(Kg)	FLOODED WT(Kg)	STATUS NOT TO EXCEED(NTE) FINAL (F)
1	STEAM TURBINE	1	COVERED IN "MACHINERY ARRANGEMENT AND FOUNDATION" DRG.NO.1-313-01-08634		
2	GENERATOR	1			
3	SURFACE CONDENSER	1			
4	GENERATOR AIR COOLER ASSEMBLY	1			
5	LUBE OIL CONSOLE (LUBE OIL TANK, MOP, AOP, EOP, TWIN LUBE OIL COOLERS,FILTERS)	1	16465	34120	F
6	JACKING OIL SKID	1	2250	2500	F
7	HP CONTROL OIL SKID	1	3900	4950	F
8	OIL CENTRIFUGE(TROLLEY TYPE)	1	1200	2200	F
9	LP HEATER - 1	1	31100	62000	F
10	LP HEATER - 2	1	34000	64000	F
11	LP HEATER - 3	1	32000	59500	F
12	DEAERATOR	1	80420	401090	F
13	HP HEATER - 5	1	53500	73100	F
14	HP HEATER - 6	1	63100	84600	F
15	STEAM JET AIR EJECTOR ASSEMBLY	1	7500	11500	F
16	GLAND STEAM CONDENSER WITH EJECTOR	1	2000	2700	F
17	DRAIN COOLER	1	5800	8400	F
18	BOILER FEED PUMP ASSEMBLY WITH MOTOR	3	-	34752	F
19	CONDENSATE EXTRACTION PUMP WITH MOTOR	2	-	3350	F
20	CONDENSATE FORWARDING TANK	1	6765	195500	F
21	CONDENSATE FORWARDING PUMP WITH MOTOR	3	-	2068	F
22	ACW BOOSTER PUMP WITH MOTOR	2	-	2200	F
23	PHE FOR CLOSED CIRCUIT CW SYSTEM	1	9323	11890	F
24	HP FLASH TANK FOR STG	1	8500	51000	F
25	AMMONIA DOSING SKID	1	650	1000	F
26	HYDRAZINE DOSING SKID	1	600	750	F
27	NAOH DOSING SKID	1	400	850	F
28	OVER HEAD TANK (OIL)	1	2066	10450	F
29	ATMOSPHERIC FLASH TANK	1	1500	4000	F
30	GENERATOR ADAPTER BOX	1	-	12000	F
31	LUBE OIL ACCUMULATORS (1 SET)	1	620	815	F

EQUIPMENT LIST (COMMON)

SL NO.	EQUIPMENT	QTY (Nos)	EMPTY WT(Kg)	FLOODED WT(Kg)	STATUS NOT TO EXCEED(NTE) FINAL (F)
51	CLOSED CIRCUIT CW SYSTEM PUMP	4	-	6026	F
52	IA & PA SYSTEM	1	-	61060	F
52.A	AIR COMPRESSOR	4	-	8250	F
52.B.1	AIR RECIEVER (WET)	1	-	8000	F
52.B.2	AIR RECIEVER (DRY)	2	-	11000	F
52.C	AIR DRYER	3	-	3020	F
53	CCW EXPANSION TANK AND NAOH BREATHER	1	2000	15000	F
54	SWAS PANEL (TOTAL PER SWAS UNIT)	2	-	3200	F
55	LOCAL GAUGE BOARD	2	-	800	F

NOTE: WEIGHTS FURNISHED ARE UNIT WEIGHTS

REV.	DATE	ALTERED	VUK
09	11/10/14	CHD/APPD	GS/WSS
08	08/08/14	CHD/APPD	GS/WSS
07	09/07/14	CHD/APPD	GS/WSS
06	17/06/14	CHD/APPD	GS/WSS
05	06/05/14	CHD/APPD	GS/WSS
04	25/03/14	CHD/APPD	GS/WSS
03	21/12/13	CHD/APPD	GS/WSS
02	29/10/13	CHD/APPD	GS/WSS
01	14/09/13	CHD/APPD	GS/WSS

REVISION REASON : IFA
DRAWING REVISED GENERALLY AND IN IN LINE WITH BECHTEL'S COMMENTS.

DRAWING REVISED GENERALLY AND IN LINE WITH M/s BECHTEL'S COMMENTS ,REVISED INPUTS.

DRAFTING ERRORS CORRECTED. SHEET 5 REMOVED. GENERALLY REVISED.

CONSULTANT: BECHTEL FREDERICK, MARYLAND, U.S.A

PROJECT: STG PACKAGE (4 X 93.1 MW STGs), CCPP HAZIRA MANUFACTURING DIVISION (HMD)

CUSTOMER: RELIANCE UTILITIES AND POWER PRIVATE LIMITED COAL BASED CAPTIVE POWER PLANT (CCPP)

RUPPL DRG. NUMBER HAZIRA: 10090-P50-HAT000-BHB-0001

BHARAT HEAVY ELECTRICALS LTD. PROJECT ENGG & SYSTEMS DIVISION HYDERABAD

	NAME	SIGN.	DATE	NO.OF VAR.
DRN.	V.U.K	-SD-	09.09.13	
CHD.	G.S	-SD-	09.09.13	NA
APPD.	V.V.S.S	-SD-	09.09.13	

DEPT. PESD-ENGG | UNTOL. DIMS. OR. g/m/y | SCALE 1:250 | WEIGHT (KG) NA | REF. TO ASSY. DRG. NA | ITEM NO. NA | NO.OF ITEMS NA

CODE 450

TITLE: INPUT FOR STG HALL EQUIPMENT LAYOUT

CARD CODE

BHEL DRAWING NO: 0-381-01-01529 | REV. 09

SHT. No 01 | NO. OF SHT. 04

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GENERAL DIMENSIONAL LIMITS,FITS & TOLERANCES AS PER HY02300261

COMPUTER FILE NAME: 0381010529-SH01-R02.DWG

SIGN. AND DATE | REF. DRG. NO. | INVENTORY NO.