2X800 MW Gadarwara MRS
Reply Of Prebid Clarification

S. No.	Page / Specification No.	Clause No.	Comments / Clarifications	Reply By BHEL
1	Technical specification document no-PE-TS-395-160-A001 Volume II-B Section-C Rev. No-00 Sheet-28	1.1(q)	For each vessel, one (1) no. dedicated Pneumatic panel cum Junction box shall be provided by us hence separate junction box will not be required and not considered. One (1) no. Junction box shall be provided at each MRS Silo top for instruments.	Specification requirement is clear. Bidder to follow specification.
2	Technical specification document no-PE-TS-395-160-A001 Volume II-B Section-C Rev. No-00 Sheet-28	1.1(cc)	Please indicate the location of Purchaser's DCS/ IO cabinet allocated for MRHS I/O's so that cables could be considered accordingly. At present we have considered maximum distance of 75 meters between the farthest mill and Purchaser's DCS/ IO cabinet.	Attached please find TG Hall Equipment Plan at El 18.0m (showing location fo control room) ; PE-DG-394-100-M005, R3 and Key plan of Boiler, drg no 0-00-020-76424, R0(showing location of mills) for computing distance between DCS and farthest mill. Further kindly note that minimum cable length of 300m shall be considered and any additional length required, same shall be supplied by bidder as per layout finalised during detail engineering without any commercial implication.
3	Vendor List-Electrical and Instrumentation		We would request you to add the following additional makes for the below mentioned items:- 1. Pressure Gauge & Temperature Gauge-Ashcroft India Pvt Ltd. 2. Instrument cable/Control cable-KEI Industries & Thermo cables. 3. Cable Trays-Patni	Bidder to kindly note that sub-vendor list shall be submitted by successful bidder during contract engineering and same shall be subject to customer approval without any commercial implication.

4	Annexure-I to Section C: Electrical Scope Matrix rev-0	2	LPBS are not applicable for the offered Mill reject handling system as offered Reciprocating Compressors are provided with local control panel with push buttons/indication lamps from which switching ON/OFF can be done from local itself. Starter for the same shall be provided in NTPC 415V Switchgear. Also sump pump motors are provided with local starter along with the sump pumps. Supply feeder for the same shall be provided in NTPC 415V Switchgear.	Emergency LPBS has to be provided near each motor as per electrical scope matrix in addition to LPBS considered in compressor panel. Noted
5	Annexure-I to Section C: Electrical Scope Matrix rev-0	3	We have not considered any cables(power/control/signal) along with cable trays where one end is in NTPC scope and other end is in BHEL scope for offered Mill reject handling system.	Cabling between NTPC and BHEL equipment is not in bidder's scope.
6	Annexure-I to Section C: Electrical Scope Matrix rev-0	5(b)	Our scope shall be limited to supply of branched cable trays for cables in our scope. Maximum length of branch cable trays shall be limited to 10 meters only.	Bidder to kindly refer MEP at 0.0 M (attached) wherein pipe cum cable rack has been shown. Any branch cable tray from these pipe cum cable racks is in bidder's scope.
7	Annexure-I to Section C: Electrical Scope Matrix rev-0	7	Since we are offering branched cable trays for cabling between equipments supplied by vendor in view of the same MS conduits will not be supplied.	Specification requirement is clear. Bidder to follow specification.

8	Technical specification document no-PE-TS-395-160-A001 Volume II-B Section-D Rev. No-00 General Technical requirements of LV Motors Sheet-2 of 4	4.2	Offered Conveying air compressor for MRHS is coming within the range of >160KW and <=200KW which as per referred clause shall be a CACA motor coming under LT range. Please note that we will not be able to supply CACA motor for such rating under LT category (415V) and the same has been regretted by our various sub-vendors. We shall supply TEFC motor only for this application. Please convey your concurrence.	Bidder's query is noted.
9	clause no.4.2 at Sheet 2 of 4 General Technical Specification for LV motors:	4.2	As per the referred clause, Motors above 160 KW shall be CACA motor. In this regard we wish to inform you that for the subject project motor is coming under HT range (around 300 KW) which shall be TEFC motor instead of CACA motor, as per NTPC specification (CS-9548/9549/9566/9573-102-2 Section VI Sub section III-E1 Page-3 of 8 Clause no-7.02.00) enclosed along with BHEL technical specification document (PE-TS-395-160-A001) motors can be either TEFC, CACA or TETV type, hence we have considered motor to be 3.3kV HT and TEFC cooled. It may further be noted that CACA motor for the specified capacity has not been supplied in any of the NTPC projects executed by us and neither has been specifically asked by NTPC. In view of the same we request you to accept TEFC HT motor for the subject project".	Bidder's query is noted.

NORTH

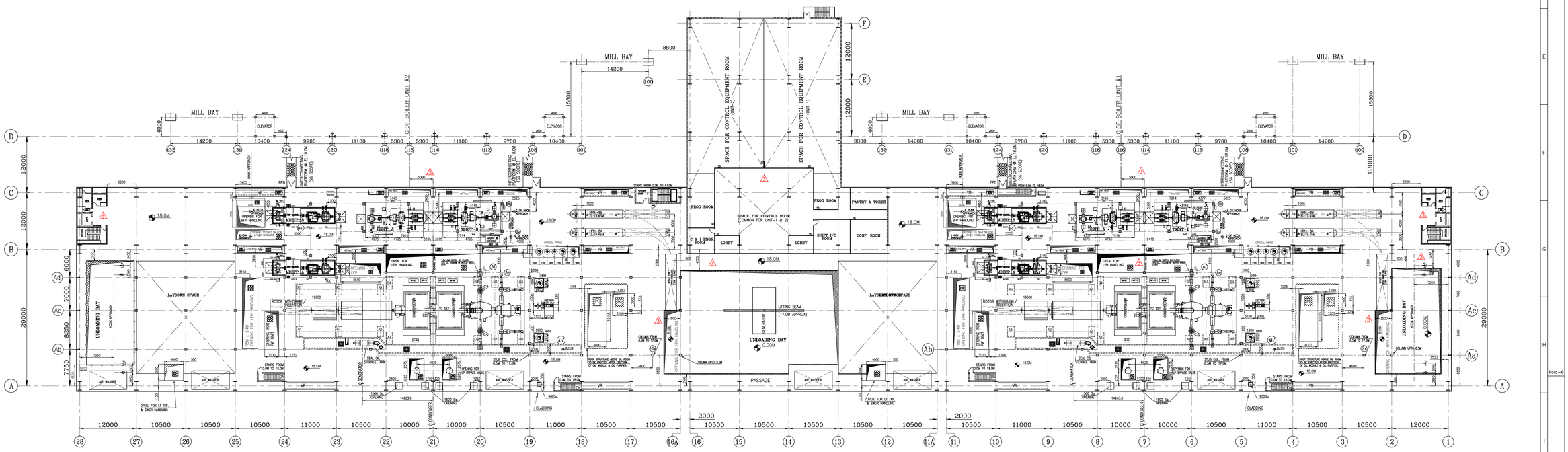
Z
X Y

REFERENCE DRGS:

SL NO	TITLE	DRG. NUMBER	NTPC DRG. NUMBER	UNIT
1	TG EQUIPMENT PLAN AT EL 0.0 M	PE-DG-394-100-M003	9572-110-PEM-PVM-F-049	PEM
2	TG EQUIPMENT PLAN AT EL 8.5 M	PE-DG-394-100-M004	9572-110-PEM-PVM-F-050	PEM
3	TG EQUIPMENT PLAN AT MISCELLANEOUS FLOORS IN BC BAY	PE-DG-394-100-M006	9572-110-PEM-PVM-F-052	PEM
4	T.G. HALL CROSS SECTION	PE-DG-394-100-M007	9572-110-PEM-PVM-F-053	PEM
5	GA MDBFP	HY-DG-1-18000-57582	9572-110-PVM-W-027	HYD
6	GA TDBFP	HY-DG-1-18000-57581	9572-110-PVM-L-003	HYD
7	GA HP HEATER 8A	–	–	HYD
8	GA HP HEATER 8B	–	–	HYD
9	TG DECK FOUNDATION PLAN	–	–	HWR
10	LAYDOWN OF GENERATOR COMPONENTS	–	–	HWR
11	LAYDOWN OF TURBINE COMPONENTS	–	–	SAG
12	FOUNDATION ARRANGEMENT FOR BFP AND DRIVE TURBINE	–	–	HYD
13	FOUNDATION OF MDBFP	HY-DG-1-18000-57580	9572-110-HYD-PVM-B-044B	HYD
14	OIL CANAL FOUNDATION PLAN	–	–	HWR
15	OUTLINE OF GENERATOR	–	–	HWR

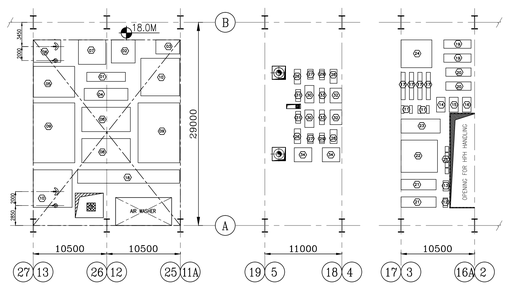
LEGEND

- PIPE HATCH
- VERTICAL BRACING
- FPD — FIRE PROOF DOOR
- GRATING
- CHEQUERED PLATE
- (R) — REMOVABLE HAND RAILING
- CABLE TRAY
- FIRE BARRIER WALL
- INDICATES PIPES/CABLE TRESTLE.
- (RS) — ROLLING SHUTTER
- RAIL TRACK
- PIPE TRENCH WITH PCC COVERED SAND FILLED



NOTES:–

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL FINISHED FLOOR ELEVATION OF EL 0.0M WHICH CORRESPONDS TO 358.5 M .
3. EQUIPMENTS SHOWN IN THIS DRAWING WHICH ARE NOT COVERED UNDER TG PACKAGE ARE INDICATIVE ONLY.
4. EQUIPMENTS & FACILITIES SHOWN FOR PACKAGES OTHER THAN TG PACKAGE ARE SUGGESTIVE ONLY
   HOWEVER IT IS PREFERRED THAT SIMILAR DETAILS BE ENSURED FORM RESPECTIVE PACKAGE VENDORS.
5. CABLE DUCT/TRENCH/SLIT LAYOUT IS SHOWN FOR REPRESENTATION PURPOSE ONLY. FOR DETAILS REFER ELECTRICAL DRAWING.
6. ALL INSERTS, EMBEDMENTS & PLATFORMS SHALL BE AS PER AGREED CONTRACT.



EQUIPMENT LAYDOWN ARRANGEMENT FOR TG & GENERATOR

DETAIL OF LAY-DOWN SPACE FOR TG COMPONENTS

S.No	DESCRIPTION	WT.IN T	AREA M x M
(01)	HP SHAFT	20.0	5.5 X 1.3
(02)	EXHAUST CASING	25.0	3.4 X 3.3
(03)	INNER CASING UPPER PART	17.0	3.4 X2.0
(04)	IP SHAFT	40.0	6.232 X 1.7
(05)	IP TURBINE OUTER CASING UPPER PART	41.0	5.89 X 4.4
(06)	IP TURBINE INNER CASING UPPER PART	32.0	3.9 X 3.2
(07)	IP TURBINE INNER CASING LOWER PART	37.0	3.9 X 3.5
(08)	LP1 & LP2 SHAFT	76.0	6.932 X 3.46
(09)	LP1 & LP2 OUTER CASING UPPER PART	28.0	8.56 X 5.935
(10)	LP1 & LP2-INNER CASING UPPER HALF	26.0	5.55 X 5.36
(11)	SHAFT SEAL CAS –TE & GE	0.5	0.405 X 1.12
(12)	HP FRONT BEARING UPPER PART	0.6	0.65 X 1.35
(13)	HP REAR BEARING UPPER PART	0.9	0.8 X 1.45
(14)	IP REAR BEARING UPPER PART	2.3	1.215 X 2.1
(15)	LP REAR BEARING UPPER PART	2.3	1.275 X 2.1
(16)	LP REAR–2 BEARING UPPER PART	2.3	1.235 X 2.1
(17)	STATIONARY BLADE RING ASSEMBLY 4 NOS	3.5	3.9 X 0.6

(18)	GENERATOR – ROTOR	93.0	14.57 X 1.91
(19)	END SHIELD UPPER & LOWER HALF (ES) 2 NOS	9.0	1.2 X 3.9
(20)	END SHIELD UPPER & LOWER HALF (TS) 2 NOS	8.0	1.2 X 3.6
(21)	HYDROGEN COOLERS (2 NOs TWIN TYPE)	4.5	5.0 X 1.5
(22)	HYDROGEN COOLERS HOUSING	26.0	4.6 X 5.2
(23)	EXCITER	30.0	5.6 X 2.01
(24)	EXCITER HOUSING	3.5	4.4 X 3.97
(25)	BEARING SHELLS –TS & ES 4NOS	0.5	0.5 X 0.8
(26)	HP CONTROL VALVE	2.2	2.1 X 0.9
(27)	HP CONTROL VALVE ACTUATOR	1.5	1.4 X 0.8
(28)	HP STOP VALVE	2.5	2.0 X 1.0
(29)	HP STOP VALVE ACTUATOR	1.2	1.5 X 0.7
(30)	IP CONTROL VALVE	4.9	2.5 X 1.3
(31)	IP CONTROL VALVE ACTUATOR	1.5	1.7 X 0.7
(32)	IP STOP VALVE	6.2	2.1 X 1.7
(33)	IP STOP VALVE ACTUATOR	1.4	2.1 X 0.7
(34)	BYPASS VALVE WITH ACTUATOR 2 NOS	10.5	2.5 X 2.0

REV.	DATE	ALTD	CHD	APPD
03	26.12.2013	PS	RC	BKA
1	DRAWING REVISED AS PER NTPC COMMENTS ON REV–02 DTD. 08.10.2013. REVISED MARKED AS (1)			

REV.	DATE	ALTD	CHD	APPD
02	8.09.2013	VKS Sd/–	RC Sd/–	BKA Sd/–
1	DRAWING REVISED AS PER NTPC COMMENTS ON REV–01 DTD. 23.08.2013.			

REV.	DATE	ALTD	CHD	APPD
01	30.07.2013	VKS Sd/–	RC Sd/–	BKA Sd/–
1	DRAWING REVISED AS PER NTPC COMMENTS ON REV–0 DTD. 02.07.2013 .			

NTPC DRG. No. 9572-110-PEM-PVM-F-051

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

JOB NO. 394
STATUS CONTRACT
DISTRIBUTION

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

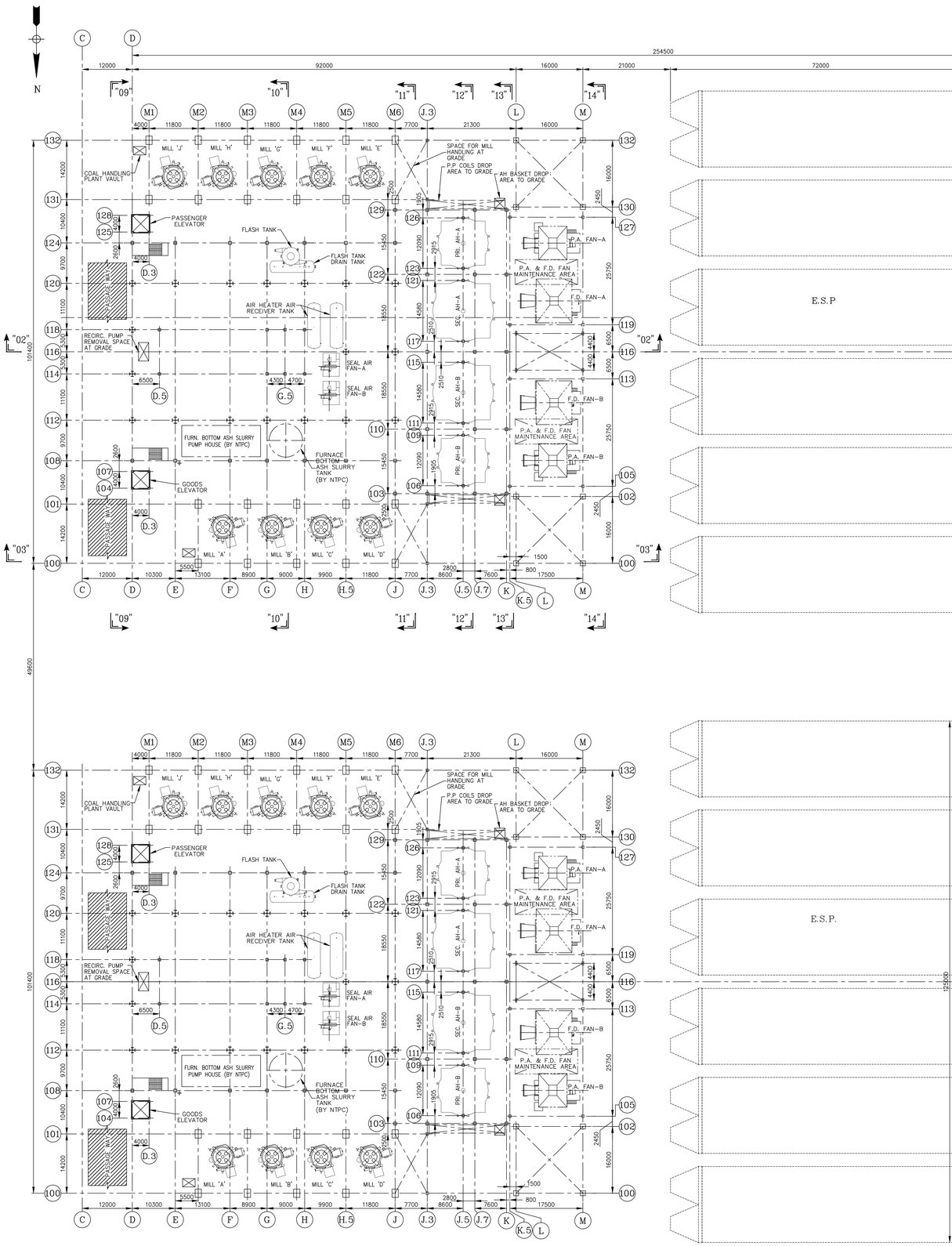
DEPT CODE	NAME	SIGN	DATE
M	DRN VK SAH	Sd/–	07.06.2013
	DESN ROHIT CHAWLA	Sd/–	07.06.2013
	CHD BK AGARWAL	Sd/–	07.06.2013
	APPD ANIL JOSHI	Sd/–	07.06.2013

TITLE: TG EQUIPMENT PLAN AT EL 18.0 M

DEPT. | SCALE 1:300 | SIGN | DRAWING NO. PE-DG-394-100-M005 | SHEET 1 OF 1 | REV. 3

SIZE–A0

E2B-000111-1E0001	REVISION	00	D W 18APR13	C K 18APR13	A P 18APR13	CO – INITIAL ISSUE



KEY PLAN

GENERAL NOTES:

1. ALL ELEVATIONS ARE WITH RESPECT TO EL. (+)0.00m, FINISHED GROUND FLOOR LEVEL OF TG BUILDING AND MILL BAY, WHICH CORRESPONDS TO RL 358.5M' . FINISHED GROUND FLOOR LEVEL OF BOILER AND ESP AREAS ARE AT (–)0.200m, WHICH CORRESPONDS TO RL '358.3m'.
2. FOR ALL INFORMATION & DIMENSIONS, SEE REFERENCE DRAWINGS.
3. ALL DUCT DIMENSIONS ARE TO THE INSIDE OF DUCT PLATES.
4. ALL INSIDE DUCT RADII TO BE 600mm, UNLESS NOTED.
5. ALL FURNACE OPENINGS ARE IN BOTH SIDES OF FURNACE, UNLESS NOTED.
6. ALL PLATFORM ELEVATIONS ARE TO TOP OF GRATING, UNLESS NOTED.
7. ACCESS DOOR SIZES TO BE:
   - 500mm X 500mm IN TUBE WALLS
   - 450mm x 450mm IN DUCTS
   - 610mm X 610mm IN ENCLOSURES
   - 500mm x 500mm – FURNACE ROOF ENCLOSURE HEAT REMOVAL DOORS
   - 813mm X 1397mm – WATER–COOLED SCAFFOLD DOOR IN UPPER FURNACE SIDEWALL
   - 610mm X 762mm – WATER–COOLED SCAFFOLD DOOR IN LOWER FURNACE SIDEWALL
8. CENTERLINE OF ALL DUCT ACCESS DOORS TO BE LOCATED 600mm ABOVE BOTTOM INSIDE OF DUCT PLATES UNLESS NOTED.
9. IT IS THE INTENT OF THE GEN. ARRGT'S. TO SHOW ONLY THE MAJOR BOILER EQUIPMENT COMPONENTS AND ACCESSORIES. ALL OTHER EQUIPMENT IS SHOWN TO A LIMITED EXTENT AND ONLY WHERE IT AFFECTS THE BOILER EQUIPMENT ARRANGEMENT.
10. FOR THERMAL MOVEMENTS AT PIPING TERMINAL POINTS, SEE PRESSURE PART CONNECTIONS AND EXPANSION MOVEMENT DIAGRAMS, DRAWING NO. E2B–000111–1E0302.
11. FOR FURNACE EXPANSION DIAGRAMS, SEE PRESSURE PART CONNECTIONS AND EXPANSION MOVEMENT DIAGRAM No.: E2B–000111–1E0302
12. ALL SIZES AND DIMENSIONS SHOWN ARE IN MILLIMETERS.

REFERENCE DRAWINGS:

1.	GEN. ARRG'T. – KEY PLAN, GEN. NOTES & LEGEND	E2B–000111–1E0001
2.	GEN. ARRG'T. – SIDE ELEV. VIEW "02–02"	E2B–000111–1E0002
3.	GEN. ARRG'T. – SIDE ELEV. VIEW "03–03"	E2B–000111–1E0003
4.	GEN. ARRG'T. – PLAN VIEW "04–04"	E2B–000111–1E0004
5.	GEN. ARRG'T. – PLAN VIEW "05–05"	E2B–000111–1E0005
6.	GEN. ARRG'T. – PLAN VIEW "06–06"	E2B–000111–1E0006
7.	GEN. ARRG'T. – PLAN VIEW "07–07"	E2B–000111–1E0007
8.	GEN. ARRG'T. – PLAN VIEW "08–08"	E2B–000111–1E0008
9.	GEN. ARRG'T. – FRONT ELEV. VIEW "09–09"	E2B–000111–1E0009
10.	GEN. ARRG'T. – REAR ELEV. VIEW "10–10"	E2B–000111–1E0010
11.	GEN. ARRG'T. – REAR ELEV. VIEW "11–11"	E2B–000111–1E0011
12.	GEN. ARRG'T. – REAR ELEV. VIEW "12–12"	E2B–000111–1E0012
13.	GEN. ARRG'T. – REAR ELEV. VIEW "13–13"	E2B–000111–1E0013
14.	GEN. ARRG'T. – REAR ELEV. VIEW "14–14"	E2B–000111–1E0014
15.	BOILER EQUIPMENT DESIGNATION	E2B–000111–1E0024
16.	TYPICAL WALL CLEARANCE REQUIREMENTS	E2B–000111–1D0035
17.	FURNACE BOTTOM ASH HOPPER STUDY	E2B–000111–1D0036
18.	MS,HRH,CRH, & FW PIPING ARRGT.–ELEV. VIEW	E2B–000111–1E0043
19.	MS,HRH,CRH, & FW PIPING ARRGT.–PLAN VIEW	E2B–000111–1E0044
20.	START–UP SYSTEM ARRG'T. SHEET 1 OF 4	E2B–000111–1E0060SH01
21.	START–UP SYSTEM ARRG'T. SHEET 2 OF 4	E2B–000111–1E0060SH02
22.	START–UP SYSTEM ARRG'T. SHEET 3 OF 4	E2B–000111–1E0060SH03
23.	START–UP SYSTEM ARRG'T. SHEET 4 OF 4	E2B–000111–1E0060SH04
24.	G.A.–FURNACE OPENING & BUCKSTAY LOC'S. SHT. 1 OF 2	E2B–000111–1E0070SH01
25.	G.A.–FURNACE OPENING & BUCKSTAY LOC'S. SHT. 2 OF 2	E2B–000111–1E0070SH02
26.	GEN. ARRANGEMENTS – DUCT LAYOUTS	E2B–000111–1E0080SH01 THRU –1E0080SH10
27.	FLOOR PLAN ARRANGEMENTS	E2B–000111–1E0090SH01 THRU –1E0090SH27

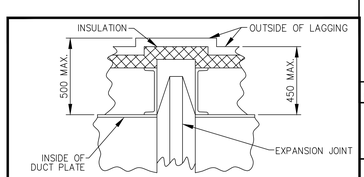
INDEX DRAWINGS:

LEGEND:

- – LONG RETRACTABLE SOOT BLOWER
- F – FUTURE LONG RETRACTABLE SOOT BLOWER WITH WALLBOX OPENING
- – WALL BLOWER INSTALLED
- FO – FUTURE WALL BLOWER WITH BLANKED–OFF TUBE WALL OPENING
- – GAS TEMPERATURE PROBE
- – INSTRUMENT INSERT
- – TELEVISION CAMERA
- – FURNACE GUIDE
- – DAMPER DRIVE LINKAGE (DIRECT DRIVE UNIT)
- – 90 X 160 OBSERVATION DOOR (AIR COOLED)
- – ACCESS DOOR – SEE NOTE NO. 7
- – ROOF & FURNACE ENCLOSURE ACCESS DOOR – SEE NOTE NO. 7
- (E) – ELEVATOR LANDING
- ALSTOM POWER INC./BHEL BY OTHERS – SCOPE TERMINAL POINT
- – ACOUSTIC STEAM LEAK DETECTOR
- – ACOUSTIC PYROMETER
- AD – ACCESS DOOR
- WB – WALL BLOWER
- OBD – OBSERVATION DOOR
- P.A. – PRIMARY AIR
- S.A. – SECONDARY AIR
- W.P. – WORK POINT
- F.O.F. – FACE OF FLANGE
- S.G. – SLIDE GATE
- D.D. – DAMPER DRIVE

DESCRIPTION OF UNIT:

2 X 800 MW (2570 T/HR) [5,665,880 LBS/HR]
ONCE THROUGH SUPER CRITICAL, HAVING TWO PASS, SPIRAL WATER WALL TUBES, TOP SUPPORTED, SINGLE REHEAT, TANGENTIAL CORNER FIRED FURNACE WITH DIRECT PULVERIZED COAL FIRING, BALANCE DRAFT, RADIANT DRY BOTTOM, AND SUITABLE FOR OUTDOOR INSTALLATION
FURNACE SIZE: 22464 WIDTH X 21060 DEPTH
42.4 O.D. TUBES ON 54.0 CENTERS – FURNACE SPIRAL TUBE WALL
38.1 O.D. TUBES ON 52.0 CENTERS – FURNACE VERTICAL TUBE WALL
NON–PRESSURIZED ROOF ENCLOSURE
FIRING EQUIPMENT: TT 914 WINDBOX
PULVERIZED COAL: (9) HP1203 MILLS W/STATIC CLASSIFIERS



TYPICAL EXPANSION JOINT AND DUCT INSULATION WITH LAGGING

THIS TYPICAL DETAIL INDICATES MAXIMUM DIMENSIONS INCLUDING STIFFENERS, INSULATION AND LAGGING FOR ALL HOT DUCTS AND SHOULD BE USED IN DETERMINING PROPER CLEARANCES OF BOTH HOT AND COLD DUCTS FROM STRUCTURAL AND OTHER EQUIPMENT, ETC.

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY	APPR'D BY
00	INITIAL ISSUE	18APR13	N.K	N.V/JC	SS

BHEL CUSTOMER No.: 1804 & 1805

NTPC DRG NO: 9572–102–PVM–B–008

CUSTOMER: NTPC LIMITED (A Government of India Enterprise)

PROJECT: GADARWARA SUPER THERMAL POWER PROJECT
STAGE–1 2 x 800MW
STEAM GENERATOR PACKAGE

CONTRACTOR: BHARAT HEAVY ELECTRICALS LIMITED
BOILER PLANT UNIT; TIRUCHIRAPALLI–620014

ALL DIMENSIONS IN MILLIMETERS | PROJECTION | SCALE: 1:400 | BHEL DRAWING NO. 0–00–020–76424 | REV. 00

CONTRACT NO. E2B–000111 UNIT NO. 1 & 2

GENERAL ARRANGEMENT–KEY PLAN,GENERAL NOTES & LEGEND
FOR STEAM GENERATOR
GADARWARA SUPER THERMAL POWER PROJECT
STAGE–1 2 X 800 MW

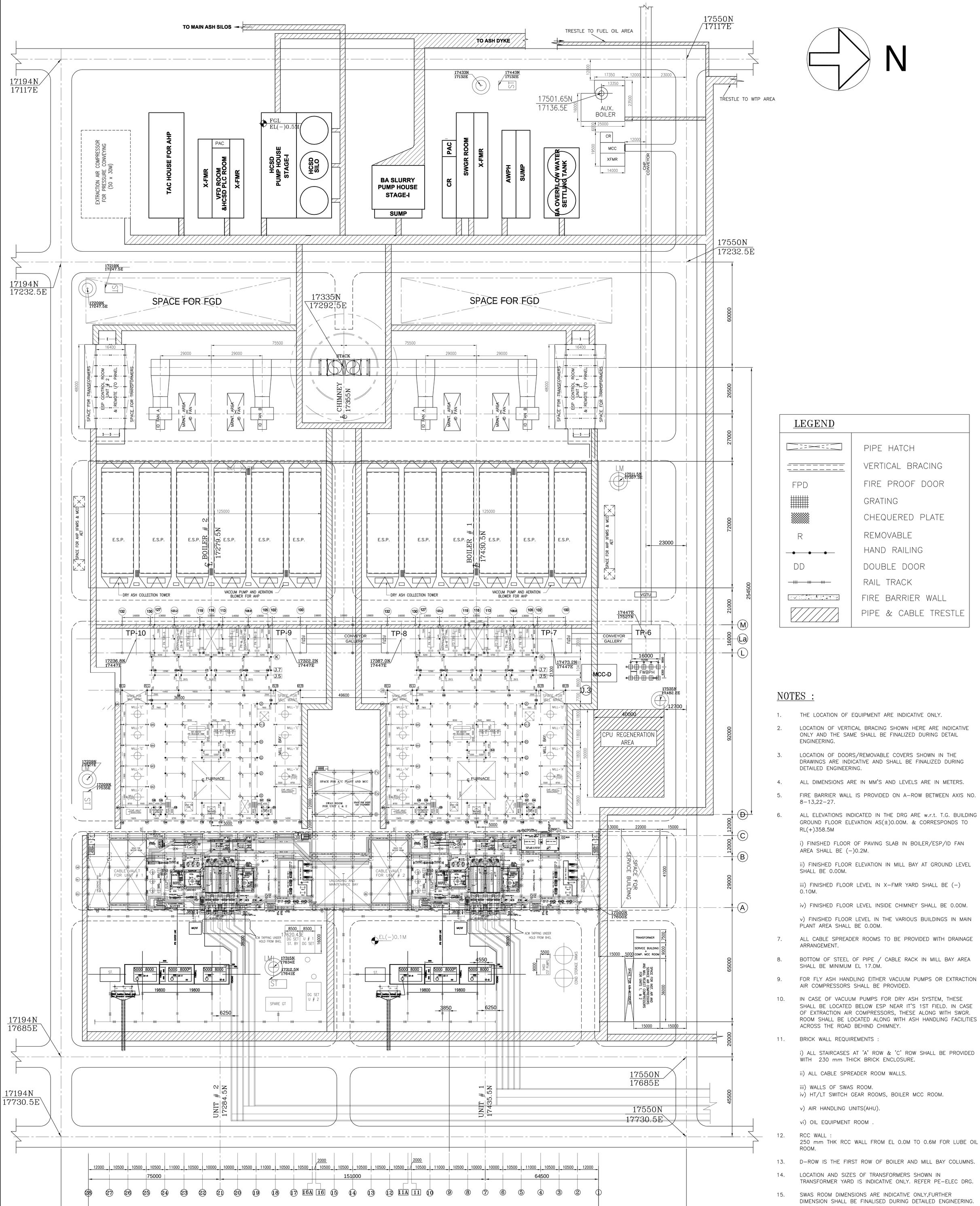
SCALE : 1:400
DRAWN BY : N.K DATE : 18APR13
CHECKED BY : N.V/JC DATE : 18APR13
APPROVED BY : SS DATE : 18APR13

WBS CODE : 68 88 8103

ALSTOM

DRAWING NO. E2B–000111–1E0001 REV. 00

FILE NAME: E2B–000111–1E0001
DIRECTORY: E2B–000111



LEGEND

	PIPE HATCH
	VERTICAL BRACING
FPD	FIRE PROOF DOOR
	GRATING
	CHEQUERED PLATE
R	REMOVABLE
	HAND RAILING
DD	DOUBLE DOOR
	RAIL TRACK
	FIRE BARRIER WALL
	PIPE & CABLE TRESTLE

NOTES :

1. THE LOCATION OF EQUIPMENT ARE INDICATIVE ONLY.
2. LOCATION OF VERTICAL BRACING SHOWN HERE ARE INDICATIVE ONLY AND THE SAME SHALL BE FINALIZED DURING DETAIL ENGINEERING.
3. LOCATION OF DOORS/REMOVABLE COVERS SHOWN IN THE DRAWINGS ARE INDICATIVE AND SHALL BE FINALIZED DURING DETAILED ENGINEERING.
4. ALL DIMENSIONS ARE IN MM'S AND LEVELS ARE IN METERS.
5. FIRE BARRIER WALL IS PROVIDED ON A–ROW BETWEEN AXIS NO. 8–13,22–27.
6. ALL ELEVATIONS INDICATED IN THE DRG ARE w.r.t. T.G. BUILDING GROUND FLOOR ELEVATION AS(±)0.00M. & CORRESPONDS TO RL(+)358.5M

   i) FINISHED FLOOR OF PAVING SLAB IN BOILER/ESP/ID FAN AREA SHALL BE (−)0.2M.

   ii) FINISHED FLOOR ELEVATION IN MILL BAY AT GROUND LEVEL SHALL BE 0.00M.

   iii) FINISHED FLOOR LEVEL IN X–FMR YARD SHALL BE (−) 0.10M.

   iv) FINISHED FLOOR LEVEL INSIDE CHIMNEY SHALL BE 0.00M.

   v) FINISHED FLOOR LEVEL IN THE VARIOUS BUILDINGS IN MAIN PLANT AREA SHALL BE 0.00M.
7. ALL CABLE SPREADER ROOMS TO BE PROVIDED WITH DRAINAGE ARRANGEMENT.
8. BOTTOM OF STEEL OF PIPE / CABLE RACK IN MILL BAY AREA SHALL BE MINIMUM EL 17.0M.
9. FOR FLY ASH HANDLING EITHER VACUUM PUMPS OR EXTRACTION AIR COMPRESSORS SHALL BE PROVIDED.
10. IN CASE OF VACUUM PUMPS FOR DRY ASH SYSTEM, THESE SHALL BE LOCATED BELOW ESP NEAR IT'S 1ST FIELD. IN CASE OF EXTRACTION AIR COMPRESSORS, THESE ALONG WITH SWGR. ROOM SHALL BE LOCATED ALONG WITH ASH HANDLING FACILITIES ACROSS THE ROAD BEHIND CHIMNEY.
11. BRICK WALL REQUIREMENTS :

    i) ALL STAIRCASES AT 'A' ROW & 'C' ROW SHALL BE PROVIDED WITH 230 mm THICK BRICK ENCLOSURE.

    ii) ALL CABLE SPREADER ROOM WALLS.

    iii) WALLS OF SWAS ROOM.
    iv) HT/LT SWITCH GEAR ROOMS, BOILER MCC ROOM.

    v) AIR HANDLING UNITS(AHU).

    vi) OIL EQUIPMENT ROOM .
12. RCC WALL :
    250 mm THK RCC WALL FROM EL 0.0M TO 0.6M FOR LUBE OIL ROOM.
13. D–ROW IS THE FIRST ROW OF BOILER AND MILL BAY COLUMNS.
14. LOCATION AND SIZES OF TRANSFORMERS SHOWN IN TRANSFORMER YARD IS INDICATIVE ONLY. REFER PE–ELEC DRG.
15. SWAS ROOM DIMENSIONS ARE INDICATIVE ONLY,FURTHER DIMENSION SHALL BE FINALISED DURING DETAILED ENGINEERING.
16. RAIN WATER DOWN COMERS SHALL BE ROUTED WITH IN COLUMN FLANGE ALONG A–ROW IN ELECTRICAL BAY AND GEN. BUS DUCT BAY.
17. NO VERTICAL BRACING IN ELECTRICAL BAY & I.P. BUS DUCT BAY SHALL BE PROVIDED.

REV.	DESCRIPTION	DRAWN	DESIGN	CHKD.	L/O	W/S	C&I	TG	MH	SG	E	C	APPD	DATE
00	RELEASED FOR PLANNING PURPOSE	Priyanka	PG	JGG									SC	15.01.14
A	RELEASED FOR TENDER PURPOSE							CLEARED BY						

एन टी पी सी लिमिटेड
NTPC Limited
(A GOVT. OF INDIA ENTERPRISE)
ENGINEERING DIVISION

PROJECT: GADARWARA SUPER THERMAL POWER PROJECT
STAGE–I (2x800 MW)

TITLE: MAIN PLANT EQUIPMENT LAYOUT AT EL.0.0M

SIZE	SCALE	DRG.NO.	REV.
A0	1:700	9572–999–POM–F–001	00

cad file name : 9572–999–POM–F–001.dwg.(15.01.14)