

6.1	<b>Control Valves</b>							
6.1.1	2 (two) sets of spare control valve stem packing for each of the control valves, as offered.							
6.1.2	1 (one) set of spare valve trim (including cage, plug, stem, seat rings, guide bushings etc.) for both the units for each of the control valves, as offered.							
6.2	<b>Control valve Actuators</b>							
6.2.1	1 (one) set of spare actuators with drive of each type and rating.							
6.2.2	10 (ten) percent of valve positioners of each type.							
6.2.3	10 (ten) percent of position transmitters of each type.							
6.2.4	10 (ten) percent of limit switches/torque switches of each type.							
<b>A</b>	<b>Total</b>							
<b>Notes:</b>								
a)	Unless stated otherwise, a 'set' means item or sub-items required for each type/ size, range of assembly/ sub- assembly required for complete replacement in one equipment system; it is further intended that the assembly/ sub-assembly which have different orientation (like left hand or right hand, top or bottom), different direction of rotation or							
b)	Wherever quantity has been specified as percentage(%), the quantity of mandatory spares to be provided by the vendor shall be the specified percentage (%) of total population required to meet the specification requirements. In case the quantity of mandatory spares so calculated happens to be in fraction, the same shall be rounded off to next higher whole number.							
c)	Wherever the quantities have been indicated for each type, size, thickness, material, radius, range etc, these shall cover all the items supplied and installed and the breakup of these shall be furnished by the vendor during detail engineering.							
d)	In case spares indicated in the list are not applicable to the particular design offered by the bidder, the bidder should offer spares applicable to the offered design with quantities generally in line with the approach followed in the above list.							
e)	Wherever bidder has indicated an item as not applicable, the same will have to be supplied free of cost, in case it is found applicable during detail engineering.							



**SCHEDULE-4**

**1 X 800 MW WANAKBORI TPS : FUEL OIL TRANSFER & STORAGE SYSTEM**

**NAME OF VENDOR:-**

SL NO	VOULME/ SECTION	PAGE NO.	CLAUSE NO.	TECHNICAL SPECIFICATION / TENDER DOCUMENT	COMPLETE DESCRIPTION OF DEVIATION	COST OF DEVIATION	PORTION OF PRICE SCHEDULE ON WHICH COST OF WITHDRAWL OF DEVIATION IS APPLICABLE	NATURE OF COST OF WITHDRAWL OF DEVIATION (POSITIVE/ NEGATIVE)	WHETHER COST OF DEVIATION INCLUDED/ EXCLUDED IN PRICE BID	REMARKS
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**TECHNICAL DEVIATIONS**


**COMMERCIAL DEVIATIONS**


**PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE**

<b>NAME</b>	<b>DESIGNATIONS</b>	<b>SIGN &amp; DATE</b>

**NOTES:**

1. For self manufactured items of bidder, cost of withdrawl of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
2. For directly dispatchable items, cost of withdrawl of deviation will be applicable on the basic price including taxes, duties & freight.
3. All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
4. Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
5. Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawl of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable.
6. Bidder shall furnish price copy of above format along with price bid.
7. The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
8. Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
9. For deviations w.r.t. Payment terms, Liquidated damages, Firm prices and submission of E1/ E2 forms before claiming 10% payment, if a bidder chooses not to give any cost of withdrawl of deviation loading as per Annexure-VIII of GCC, Rev-06 will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawl of deviation shall be taken as NIL.
10. Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
11. All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.

12. Cost of withdrawl is to be given seperately for each deviation. In no event bidder should club cost of withdrawl of more than one deviation else cost of withdrawl of such deviations which have been clubbed together shall be considered as NIL.

13. In case nature of cost of withdrawl (positive/negative) is not specified it shall be assumed as positive.

14. In case of descrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.



**TECHNICAL SPECIFICATION FOR  
FUEL OIL HANDLING SYSTEM  
1X800 MW WANAKBORI STPS**

SPECIFICATION NO. PE-TS-408-166-A001

VOLUME III

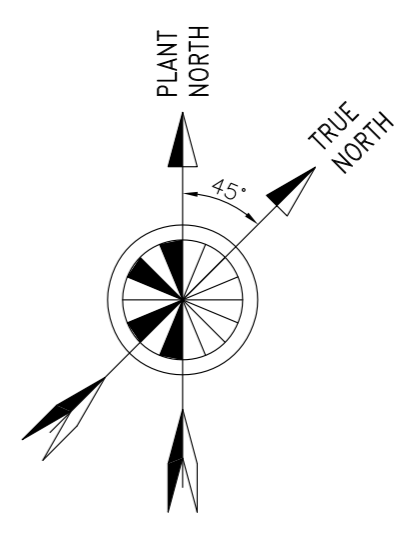
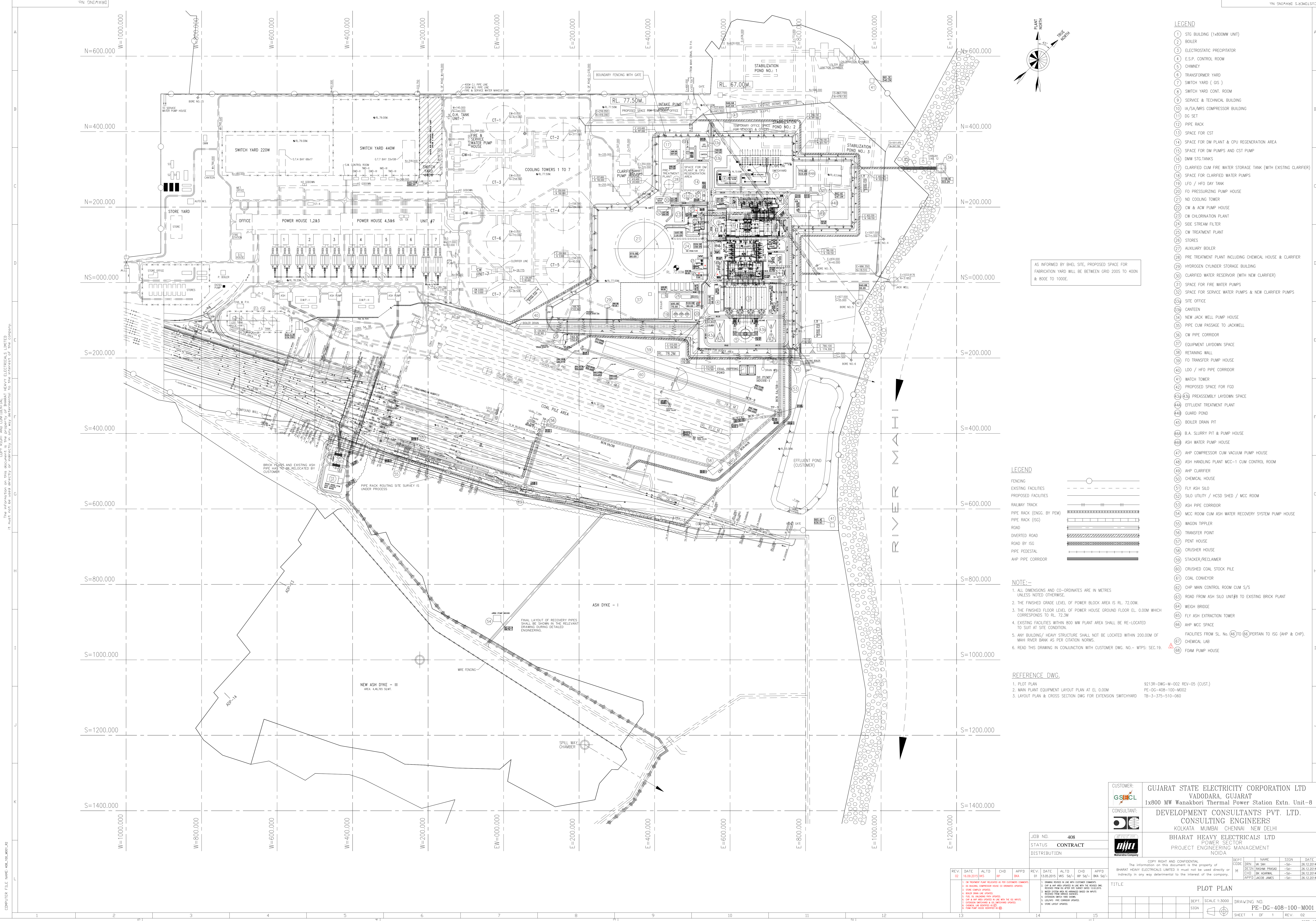
SECTION '9'

REVISION 00

DATE: 12/10/2015

PAGE 1 of 1

**SECTION 9  
DRAWINGS**



- LEGEND**
- 1 STG BUILDING (1x800MW UNIT)
  - 2 BOILER
  - 3 ELECTROSTATIC PRECIPITATOR
  - 4 E.S.P. CONTROL ROOM
  - 5 CHIMNEY
  - 6 TRANSFORMER YARD
  - 7 SWITCH YARD ( GS )
  - 8 SWITCH YARD CONT. ROOM
  - 9 SERVICE & TECHNICAL BUILDING
  - 10 IA/SA/ARS COMPRESSOR BUILDING
  - 11 DG SET
  - 12 PIPE RACK
  - 13 SPACE FOR CST
  - 14 SPACE FOR DM PLANT & CPU REGENERATION AREA
  - 15 SPACE FOR DM PUMPS AND CST PUMP
  - 16 DMW STG. TANKS
  - 17 CLARIFIED CUM FIRE WATER STORAGE TANK (WITH EXISTING CLARIFIER)
  - 18 SPACE FOR CLARIFIED WATER PUMPS
  - 19 LFO / HFO DAY TANK
  - 20 FO PRESSURIZING PUMP HOUSE
  - 21 ND COOLING TOWER
  - 22 CW & ADW PUMP HOUSE
  - 23 CW CHLORINATION PLANT
  - 24 SIDE STREAM FILTER
  - 25 CW TREATMENT PLANT
  - 26 STORES
  - 27 AUXILIARY BOILER
  - 28 PRE TREATMENT PLANT INCLUDING CHEMICAL HOUSE & CLARIFIER
  - 29 HYDROGEN CYLINDER STORAGE BUILDING
  - 30 CLARIFIED WATER RESERVOIR (WITH NEW CLARIFIER)
  - 31 SPACE FOR FIRE WATER PUMPS
  - 32 SPACE FOR SERVICE WATER PUMPS & NEW CLARIFIER PUMPS
  - 33 SITE OFFICE
  - 34 CANTEN
  - 35 NEW JACK WELL PUMP HOUSE
  - 36 PIPE CUM PASSAGE TO JACKWELL
  - 37 CW PIPE CORRIDOR
  - 38 EQUIPMENT LAYDOWN SPACE
  - 39 RETAINING WALL
  - 40 FO TRANSFER PUMP HOUSE
  - 41 LFO / HFO PIPE CORRIDOR
  - 42 WATCH TOWER
  - 43 PROPOSED SPACE FOR FGD
  - 44 PREASSEMBLY LAYDOWN SPACE
  - 45 EFFLUENT TREATMENT PLANT
  - 46 GUARD POND
  - 47 BOILER DRAIN PIT
  - 48 B.A. SLURRY PIT & PUMP HOUSE
  - 49 ASH WATER PUMP HOUSE
  - 50 AHP COMPRESSOR CUM VACUUM PUMP HOUSE
  - 51 ASH HANDLING PLANT MCC-1 CUM CONTROL ROOM
  - 52 AHP CLARIFIER
  - 53 CHEMICAL HOUSE
  - 54 FLY ASH SILO
  - 55 SILO UTILITY / HCSH SHED / MCC ROOM
  - 56 ASH PIPE CORRIDOR
  - 57 MCC ROOM CUM ASH WATER RECOVERY SYSTEM PUMP HOUSE
  - 58 WAGON TIPPLER
  - 59 TRANSFER POINT
  - 60 PENT HOUSE
  - 61 CRUSHER HOUSE
  - 62 STACKER/RECLAIMER
  - 63 CRUSHED COAL STOCK PILE
  - 64 COAL CONVEYOR
  - 65 CHP MAIN CONTROL ROOM CUM S/S
  - 66 ROAD FROM ASH SILO UNIT#8 TO EXISTING BRICK PLANT
  - 67 WEIGH BRIDGE
  - 68 FLY ASH EXTRACTION TOWER
  - 69 AHP MCC SPACE
  - 70 FACILITIES FROM SL. No. 46) TO 66) PERTAIN TO ISG (AHP & CHP).
  - 71 CHEMICAL LAB
  - 72 FOAM PUMP HOUSE

AS INFORMED BY BHEL SITE, PROPOSED SPACE FOR FABRICATION YARD WILL BE BETWEEN GRID 200S TO 400N & 800E TO 1000E.

- LEGEND**
- FENCING
  - EXISTING FACILITIES
  - PROPOSED FACILITIES
  - RAILWAY TRACK
  - PIPE RACK (ENGG. BY PEM)
  - PIPE RACK (ISG)
  - ROAD
  - DIVERTED ROAD
  - ROAD BY ISG
  - PIPE PEDESTAL
  - AHP PIPE CORRIDOR

- NOTE:-**
- ALL DIMENSIONS AND CO-ORDINATES ARE IN METRES UNLESS NOTED OTHERWISE.
  - THE FINISHED GRADE LEVEL OF POWER BLOCK AREA IS RL. 72.00M. CORRESPONDS TO RL. 72.3M
  - EXISTING FACILITIES WITHIN 800 MM PLANT AREA SHALL BE RE-LOCATED TO SUIT AT SITE CONDITION.
  - ANY BUILDING/ HEAVY STRUCTURE SHALL NOT BE LOCATED WITHIN 200.00M OF MAHI RIVER BANK AS PER CITATION NORMS.
  - READ THIS DRAWING IN CONJUNCTION WITH CUSTOMER DWG. NO. - WTPS: SEC.19.

- REFERENCE DWG.**
1. PLOT PLAN
  2. MAIN PLANT EQUIPMENT LAYOUT PLAN AT EL. 0.00M
  3. LAYOUT PLAN & CROSS SECTION DWG FOR EXTENSION SWITCHYARD

9213R-DWG-M-002 REV-05 (CUST.)  
PE-DG-408-100-M002  
TB-3-375-510-060

**CUSTOMER:** GUJARAT STATE ELECTRICITY CORPORATION LTD  
VADODARA, GUJARAT  
1x800 MW Wanakbori Thermal Power Station Extn. Unit-8

**CONSULTANT:** DEVELOPMENT CONSULTANTS PVT. LTD.  
CONSULTING ENGINEERS  
KOLKATA MUMBAI CHENNAI NEW DELHI

**PROJECT:** BHARAT HEAVY ELECTRICALS LTD  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
NOIDA

JOB NO.	408
STATUS	CONTRACT
DISTRIBUTION	

REV.	DATE	ALTD	CHD	APPR	REV.	DATE	ALTD	CHD	APPR
01	18.12.2014				01	18.12.2014			

DEPT	NAME	SIGN	DATE
DESIGN	IR. SURESH		18.12.2014
CHECK	IR. ANAND		18.12.2014
APPROV	JACQUE. JAMES		18.12.2014

**TITLE:** PLOT PLAN

DEPT. SCALE: 1:3000 DRAWING NO. PE-DG-408-100-M001

SHEET 1 OF 1 REV. 02

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