



Ref No. : PE/PG/EN1/E-4870/2015

Date: 10.07.2015

**CORRIGENDA / ADDENDA-2**

**Tender Enquiry no.: PE/PG/EN1/E-4870/2015**

**Date: 03.06.2015**

<b>DUE DATE</b>
<b>15-JUL-2015</b>
<b>02:00 PM</b>

**Subject: Amendment in Technical Specification and Commercial Clarification for "MISC. TANKS (SITE FABRICATED)" of "2x660 MW ENNORE SEZ STPP".**

Our Ref: i) Tender Enquiry no.: PE/PG/EN1/E-4870/2015 Date: 03.06.2015  
ii) Corrigena/Addenda-1 Dtd. 01.07.2015

1. There is Amendment in Technical Specification. Amendment details are enclosed herewith.
2. W.r.t. clause no. 14 of SCC Rev00 of project, kindly note the following:-

**2.1 Construction Power:**

HT power supply (33KV/433 V or 11KV/433 V) shall be made available for erection work at the rates prevailing at the time of usage on chargeable basis as per HT tariff V (Temporary construction supply) rates applicable as per TNERC tariff order.

Fuel and start-up power required during testing, commissioning, PG testing, re-testing etc. Shall be provided at free of cost.

**2.2 Construction Water:**

Construction water shall be available at one point within the plant boundary on chargeable basis subject to availability.

All other terms & conditions shall remain unchanged

With Regards,  
For & on behalf of BHEL

  
Akash Verma

Engineer/PG-II-2

Please reply to:

**Akash Verma/ PG-II-2**

Power Project Engineering Institute Building  
HRD & ESI Complex Plot No. 25, Sector -16 A,  
BHEL-PEM,Noida-201301 (U.P.)

Tel No. 0120-4368960

**TAMILNADU GENERATION AND DISTRIBUTION  
CORPORATION LIMITED.**

**2X660MW ENNORE SEZ COAL BASED STPP AT ASH  
DYKE OF NCTPS, CHENNAI**

AMENDMENT NO – 01

Misc. Tank

SPECIFICATION NO.: PE-TS-412- 167-A001



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



**AMENDMENT ON TECHNICAL SPECIFICATION FOR  
MISC. TANKS (SITE FABRICATED)  
2X660MW ENNORE SEZ TPS**

SPECIFICATION NO.: PE-TS-412-167 -A001

AMENDMENT NO # 1

REV. NO. 00 DATE: 09/07/2015

Page 1 of 1

**AMENDMENT / ADDITION TO EXISTING CLAUSES OF MISC. TANK TECHNICAL SPECIFICATION.**

BIDDER TO NOTE THAT EXISTING DISCRPTION AS APPEARING IN THE SPECIFICATION STANDS DELETED / MODIFIED OR ADDED AND CLAUSES / DETAILS AS MENTIONED IN "AMMENDMENT (TO BE READ AS)" COLUMN SHALL BE APPLICABLE AND COMPLIED BY THE BIDDER.

S.no	CLAUSE	EXISTING DISCRPTION	AMENDMENT (TO BE READ AS)
1	Sketch and data sheet for Condensate storage tank	<ul style="list-style-type: none"><li>• LT is top mounted</li><li>• Nozzle size and quantity</li><li>• Pressure gauge connection</li></ul>	<ul style="list-style-type: none"><li>• DP type level transmitter (Side mounted) at Condensate storage tank shall be provided by BHEL. Nozzle and valves shall be provided by bidder as per revised sketch.</li><li>• Bidder to provide the nozzle as per revised sketch attached with this amendment.</li><li>• Bidder to provide the isolation valve and nozzle connection for Pressure gauge.</li></ul>
2	Sketch and datasheet for DM storage tank	<ul style="list-style-type: none"><li>• Pressure gauge connection</li><li>• Nozzle size and quantity</li></ul>	<ul style="list-style-type: none"><li>• Bidder to provide the isolation valve and nozzle connection for Pressure gauge.</li><li>• Bidder to provide the nozzle as per revised sketch attached with this amendment.</li></ul>
3		New requirement	Bidder to provide all the hardware for instruments connection to process piping like piping, tubing, flanges, isolation valves, etc. of SS 316 in line with Vol. V, Chapter 9, Table 9.1. (attached with amendments)
4	Annexure-IV	Sub vendor list	Revised Sub -vendor list is attached

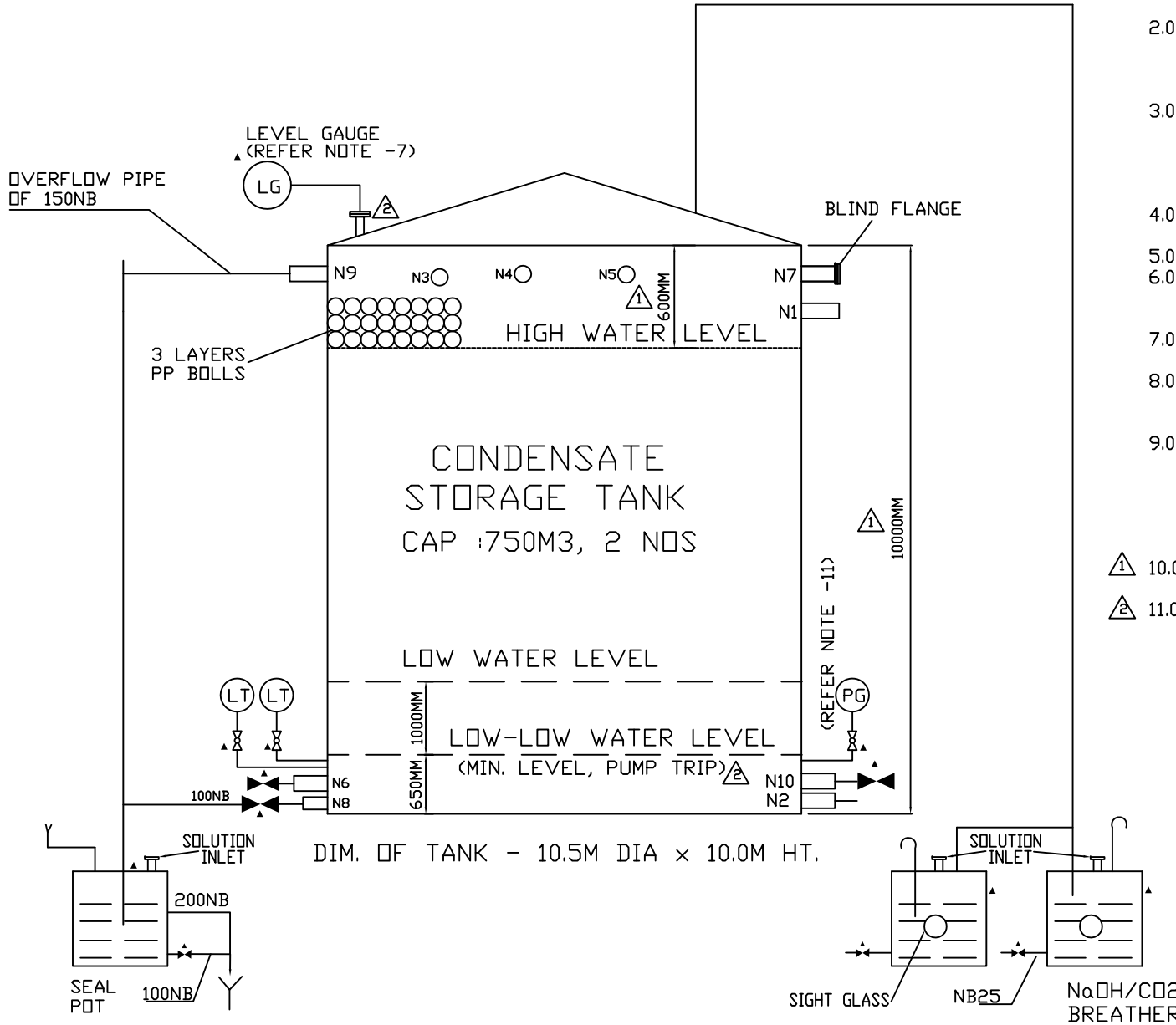
BHEL PEM	DATA SHEET-A FOR CONDENSATE STORAGE TANK	DOC NO: PE-DS-412-167-A001
	PROJECT TITLE: 2X660 MW- ENNOR	SHEET NO: 01 OF 02 REV NO: 01
1	SERVICE IDENTIFICATION	CONDENSATE STORAGE TANK
2	SYSTEM	CONDENSATE TRANSFER SYSTEM
3	APPLICABLE CODES/ STATUTORY REGULATIONS	IS-803/API650
4	CAPACITY (m3 )	750
5	NUMBER REQUIRED	TWO (02) NOS. FOR STATION (ONE NO. PER UNIT)
6	STORAGE MEDIUM	DM WATER
7	TYPE	VERTICAL, CYLINDRICAL
8	SIZE	10.5 M DIA x 10.0M HEIGHT
9	CORROSION ALLOWANCE	2.0MM
10	PRESSURE CLASS	DESIGN FOR FILLED WATER HEAD / ATOMSPHERIC
11	MATERIAL OF CONSTRUCTION	MILD STEEL TO IS:2062, GrB
12	DESIGN TEMPERATURE	60°C
13	LOCATION OF INSTALLATION	OUTDOOR
14	DRAIN VALVE FOR TANK	100 NB
15	DRAIN VALVE FOR NaOH/CO2 BREATHER	25 NB
16	DRAIN VALVE FOR SEAL POT	100 NB
17	PIPE MATERIAL FOR HAND RAILING	CARBON STEEL, GALVANIZED, MEDIUM GRADE
18	NOZZLE CONNECTIONS REQD / END CONNECTION	AS PER ENCLOSED SKETCH / SOCKET WELDED FOR SIZE <= NB50 & FLANGED FOR SIZE > NB50
19	PIPE / NOZZLE MATERIAL (OTHER THAN INSTRUMENTATION)	STAINLESS STEEL TO SA312 TP 304
20	VALVES MATERIAL (OTHER THAN INSTRUMENTATION)	STAINLESS STEEL
21	VALVES END CONNECTION	SOCKET WELDED FOR SIZE <= NB50 BUTT WELDED FOR SIZE > NB50
22	INSTRUMENTS / ACCESSORIES REQUIRED	(a) 3 LAYERS OF FLOATING PP BALLS IN ADDITION TO CO2 BREATHER. (b) CONSERVATION VENT VALVE /NAOH BREATHER(TO BE PLACED ON GROUND). (c) OVERFLOW OF 150 NB & DRAIN PIPING OF 100 NB WITH DRAIN VALVE (d) SEAL POT WITH DRAIN VALVE ETC FOR OVERFLOW (e) LEVEL GAUGE FLOAT & BOARD TYPE TO COVER ENTIRE RANG (f) 2 NOS OF NOZZLE CONNECTION OF 25NB FOR LEVEL TRANSMITTERS. (g) SPARE CONNECTION OF 150 NB 1 NOS., 200NB 1NO., 250NB 1 NO. SPARE VALVES SHALL BE PROVIDED FOR OUTLET SPARE CONNECTIONS AND BLIND FLANGE SHALL BE PROVIDED FOR INLET SPARE CONNECTIONS. (h) SAMPLING CONNECTION WITH 25 NB VALVE ON TANK. (i) 3 NOS. INSTRUMENT CONNECTIONS ON TANK ROOF FOR LI. (j) 1 NO, 25 NB NOZZLE WITH ISOLATION VALVE FOR PG (Range= 0-10000 mmwc; dial size = 300 mm).
23	INSIDE PROTECTION & EXTERNAL PAINTING	REFER ANNEXURE-I REGARDING PAINTING
24	MANHOLE	TWO(2) NOS. SIZE OF 600 MM, ONE ON SHELL & OTHER ON ROOF
25	ERECTION HARDWARE FOR INSTRUMENTATION	SS 316 IN LINE WITH TABLE 9.1OF CHAPTER 9, VOL V.

01

01

02

SKETCH FOR CST



NOTES:

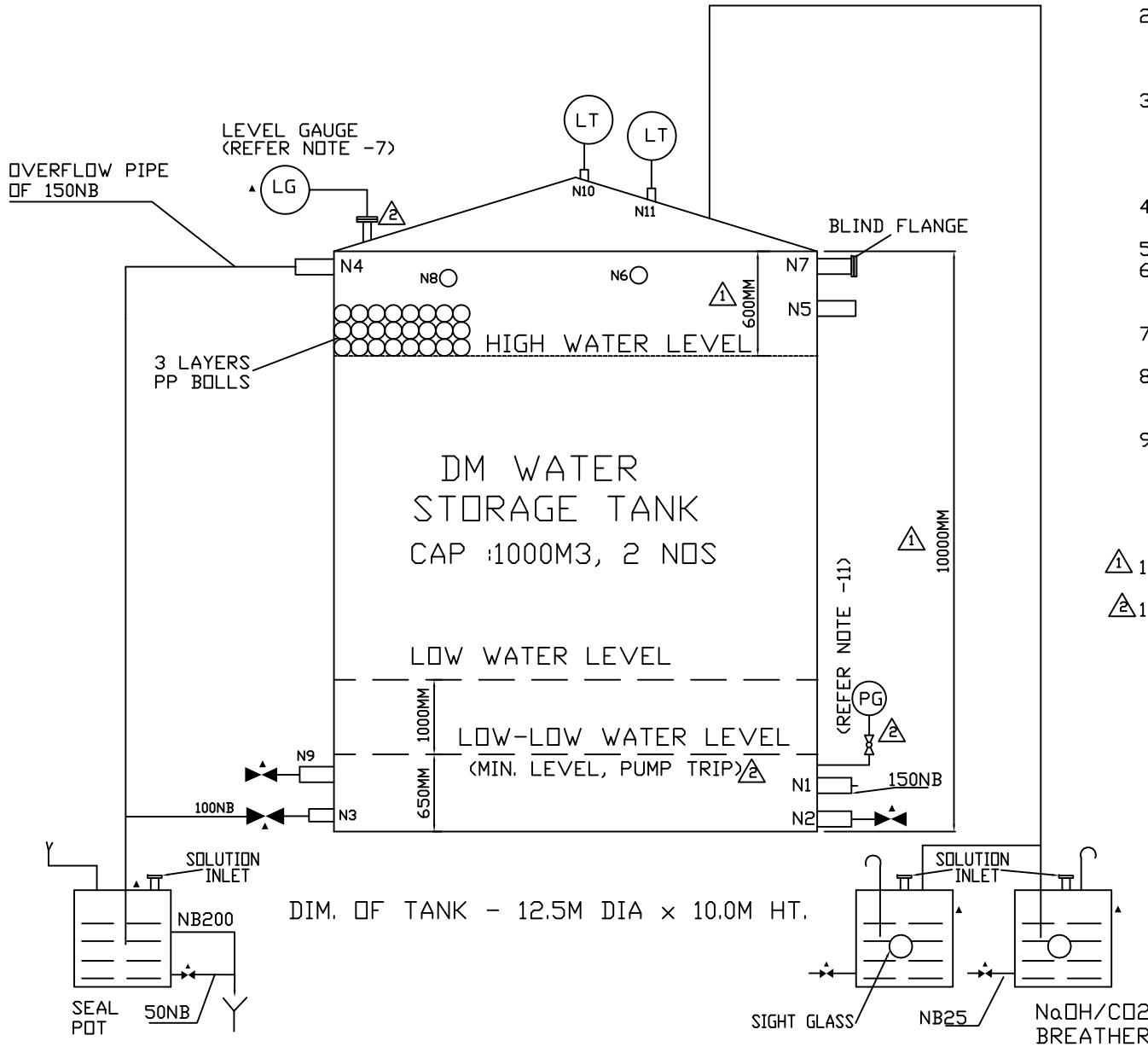
- 1.0 - HIGH WATER LEVEL SHALL BE MIN.100MM BELOW BOTTOM OF OVERFLOW NOZZLE.
- 2.0 - ALL NOZZLES (ALONG WITH FLANGES & COUNTER FLANGES), OVERFLOW PIPE, NOZZLE FOR MOUNTING LEVEL INDICATOR, SPARE VALVES SHALL BE SUPPLIED BY TANK VENDOR.
- 3.0 - TRANSMITTER SHOWN ARE EXCLUDED FROM TANK VENDOR SCOPE. THESE SHALL BE SUPPLIED SEPARATELY UNDER INSTRUMENTATION PACKAGE. 25NB NOZZLE ON TANK SHELL WITH ISOLATION VALVE SHALL BE PROVIDED BY TANK VENDOR FOR MOUNTING OF LTs.
- 4.0 - ▲ -ITEMS THUS MARKED ARE TO BE SUPPLIED ALONG WITH TANK.
- 5.0 - LOCATION OF THE TANK IS OUTDOOR.
- 6.0 - THE NET CAPACITY OF TANK I.E 750 CUM IS CAPACITY BETWEEN LOW-LOW AND HIGH LEVEL SHOWN IN THIS SKETCH.
- 7.0 - FLOAT & BOARD TYPE LEVEL GAUGE SHALL BE PROVIDED.
- 8.0 - INLET SPARE CONNECTIONS SHALL BE PROVIDED WITH BLIND FLANGE. SPARE VALVES SHALL BE PROVIDED AT SPARE OUTLET CONNECTIONS.
- 9.0 - A CIRCUMFERENTIAL DRAIN SHALL BE PROVIDED AROUND THE CST FOR TERMINATING THE TANK, SEAL PDT & NAOH BREATHER DRAINS. THE CIRCUMFERENTIAL DRAIN SHALL THEN BE CONNECTED TO NEARBY PLANT DRAIN BY CIVIL AGENCY.
- ▲ 10.0- SIZE OF TWO(2) NOS MANHOLES, ONE ON SHELL & OTHER ON ROOF ARE 600MM DIA.
- ▲ 11.0- PRESSURE GAUGE SHALL BE OF 0-10000MMWC RANGE AND 300MM DIAL SIZE.

NOZZLE NO.	DESCRIPTION	SIZE (NB)
N1	DM WATER INLET	100
N2	COND OUTLET	250
N3	RE-CIRCULATION	50
N4	RE-CIRCULATION	80
N5	EXCESS DUMP	200
N6	SPARE	200
N7	SPARE	150
N8	DRAIN	100
N9	OVERFLOW	150
N10	SPARE	250

BHEL PEM	DATA SHEET-A FOR DM STORAGE TANK	DOC NO: PE-DS-412-167-A001
	PROJECT TITLE: 2X660 MW- ENNOR	SHEET NO: 01 OF 02
		REV NO: 01
1	SERVICE IDENTIFICATION	DM WATER STORAGE TANK
2	SYSTEM	DM WATER MAKE UP SYSTEM
3	APPLICABLE CODES/ STATUTORY REGULATIONS	IS-803/API650
4	CAPACITY (m3 )	1000
5	NUMBER REQUIRED	TWO (02) NOS. FOR STATION (ONE NO. PER UNIT)
6	STORAGE MEDIUM	DM WATER
7	TYPE	VERTICAL, CYLINDRICAL
8	SIZE	12.5 M DIA x 10.0M HEIGHT
9	CORROSION ALLOWANCE	2.0MM
10	PRESSURE CLASS	DESIGN FOR FILLED WATER HEAD / ATMOSPHERIC
11	MATERIAL OF CONSTRUCTION	MILD STEEL TO IS:2062 Gr B.
12	DESIGN TEMPERATURE	60°C
13	LOCATION OF INSTALLATION	OUTDOOR
14	DRAIN VALVE FOR TANK	100 NB
15	DRAIN VALVE FOR NaOH/CO2 BREATHER	25 NB
16	DRAIN VALVE FOR SEAL POT	100 NB
17	PIPE MATERIAL FOR HAND RAILING	CARBON STEEL, GALVANIZED, MEDIUM GRADE
18	NOZZLE CONNECTIONS REQD / END CONNECTION	AS PER ENCLOSED SKETCH / SOCKET WELDED FOR SIZE <= NB50 & FLANGED FOR SIZE > NB50
19	PIPE / NOZZLE MATERIAL (OTHER THAN INSTRUMENTATION)	STAINLESS STEEL TO SA312 TP 304
20	VALVES MATERIAL (OTHER THAN INSTRUMENTATION)	STAINLESS STEEL
21	VALVES END CONNECTION	SOCKET WELDED FOR SIZE <= NB50 BUTT WELDED FOR SIZE > NB50
22	INSTRUMENTS / ACCESSORIES REQUIRED	(a) 3 LAYERS OF FLOATING PP BALLS IN ADDITION TO CO2 BREATHER. (b) CONSERVATION VENT VALVE /NAOH BREATHER(TO BE PLACED ON GROUND). (c) OVERFLOW OF 150 NB & DRAIN PIPING OF 100 NB WITH DRAIN VALVE. (d) SEAL POT WITH DRAIN VALVE ETC FOR OVERFLOW. (e) LEVEL GAUGE FLOAT & BOARD TYPE TO COVER ENTIRE RANG. (f) 2 NOS OF NOZZLE CONNECTION OF 80NB LEVEL TRANSMITTERS. (g) SPARE CONNECTION OF 200 NB 1 NO., 150 NB 2 NOS AND 100 NB 1 NO. SPARE VALVES SHALL BE PROVIDED FOR OUTLET SPARE CONNECTIONS AND BLIND FLANGE SHALL BE PROVIDED FOR INLET SPARE CONNECTIONS. (h) SAMPLING CONNECTION WITH 25 NB VALVE ON TANK. (i) 3 NOS. INSTRUMENT CONNECTIONS ON TANK ROOF FOR LI. (j) 1 NO, 25 NB NOZZLE WITH ISOLATION VALVE FOR PG (Range= 0-10000 mmwc; dial size = 300 mm).
23	INSIDE PROTECTION & EXTERNAL PAINTING	REFER ANNEXURE-I REGARDING PAINTING
24	MANHOLE	TWO(2) NOS. SIZE OF 600 MM, ONE ON SHELL & OTHER ON ROOF
25	ERECTION HARDWARE FOR INSTRUMENTATION	SS 316 IN LINE WITH TABLE 9.1OF CHAPTER 9, VOL V.



SKETCH FOR DMT



NOTES:

- 1.0 - HIGH WATER LEVEL SHALL BE MIN.100MM BELOW BOTTOM OF OVERFLOW NOZZLE.
- 2.0 - ALL NOZZLES (ALONG WITH FLANGES & COUNTER FLANGES), OVERFLOW PIPE, NOZZLE FOR MOUNTING LEVEL INDICATOR, SPARE VALVES SHALL BE SUPPLIED BY TANK VENDOR.
- 3.0 - TRANSMITTER SHOWN ARE EXCLUDED FROM TANK VENDOR SCOPE. THESE SHALL BE SUPPLIED SEPARATELY UNDER INSTRUMENTATION PACKAGE. 80NB NOZZLE ON TOP OF THE TANK SHALL BE PROVIDED BY TANK VENDOR FOR MOUNTING OF LTs.
- 4.0 - ▲-ITEMS THUS MARKED ARE TO BE SUPPLIED ALONG WITH TANK.
- 5.0 - LOCATION OF THE TANK IS OUTDOOR.
- 6.0 - THE NET CAPACITY OF TANK I.E 1000 CUM IS CAPACITY BETWEEN LOW AND HIGH LEVEL SHOWN IN THIS SKETCH.
- 7.0 - FLOAT & BOARD TYPE LEVEL GAUGE SHALL BE PROVIDED.
- 8.0 - INLET SPARE CONNECTIONS SHALL BE PROVIDED WITH BLIND FLANGE. SPARE VALVES SHALL BE PROVIDED AT SPARE OUTLET CONNECTIONS.
- 9.0 - A CIRCUMFERENTIAL DRAIN SHALL BE PROVIDED AROUND THE DM WATER TANK FOR TERMINATING THE TANK, SEAL POT & NaOH BREATHER DRAINS. THE CIRCUMFERENTIAL DRAIN SHALL THEN BE CONNECTED TO NEARBY PLANT DRAIN BY CIVIL AGENCY.
- ▲ 10.0- SIZE OF TWO(2) NOS MANHOLES, ONE ON SHELL & OTHER ON ROOF ARE 600MM DIA.
- ▲ 11.0- PRESSURE GAUGE SHALL BE OF 0-10000MMWC RANGE AND 300MM DIAL SIZE.

NOZZLE NO.	DESCRIPTION	SIZE (NB)
N1	DM WATER OUTLET	150
N2	SPARE	200
N3	DRAIN	100
N4	OVERFLOW	150
N5	DM WATER INLET	100
N6	RECIRCULATION	50
N7	SPARE	150
N8	SPARE	100
N9	SPARE	150
N10	LT CONNECTION	80
N11	LT CONNECTION	80

**Technical Specifications for C&I Systems-Table-No. 9.1**

S.No.	System/Line Description	Piping Class	Impulse Pipe material	Schedule (Size)	Materials for fitting/ valve body	Valve steam material	Rating of Piping Fitting	Pressure Class of valve
1	Main steam, Up steam & down stream of HP bypass and up stream of auxiliary steam pressure reducing valve.	A	ASTM-A335 Gr.P-91/22 (Note-2)	XXS (½ Inch)	Note-3	Note-3	9000lb	3000 SPL
2	BFP discharge/ superheater attemperator/spray to PRDS	B	ASTM-A106 Gr. C	160 (½ Inch)	Note-3	ASTM-A-182 Gr.F6a	6000lb	2500 SPL
3	Reheater attemperator	C	ASTM-A106 Gr. C	160 (½ Inch)	ASTM-A-105	ASTM-A-182 Gr.F6a	6000lb	1500 SPL
4	Hot. Reheat/Down stream of Aux.Steam pressure reducing valve upto desuperheater/flash tank drain manifold, HRH upstream & down stream of LP Bypass valve.	D	ASTM-A335 Gr.P-91/22 (Note-2)	160 (½ Inch)	ASTM-A182 Gr.F-22	Note-3	3000lb	2500 SPL
5	Cold reheat upto Tee-off for HP bypass.	E	ASTM-A335 Gr.P-22	80 (½ Inch)	ASTM-A182 Gr.F-22	ASTM-A-182 Gr.F6a	3000lb	800
6	Cold reheat down steam of Tee-off (HP Bypass)	F	ASTM-A106 Gr. C	80 (½ Inch)	ASTM-A105	ASTM-A-182 Gr.F6a	3000lb	800



2 x 660 MW ENNORE SEZ Supercritical Thermal Power  
 Project at Ash Dyke of NCTPS  
 Spec. No. CE/C/P&E/EE/E/OT.No.03/2013-14  
 Vol. V : 328



7	BFP suction/condensate system/Extraction to LPH/HPH and Extractions to BFPT, Desecrator, auxiliary steam.	G	ASTM-A106 Gr. C, ASTM-A335 Gr.P-11/22	80 (½ Inch)	ASTM-A105	ASTM-A-182 Gr.F6a	3000lb	800
8	Air/Flue gas outside furnace.	M	ASTM-A106 Gr.B/C	80 (¾ Inch)	ASTM-A105	ASTM-A-182 Gr.F6a	3000lb	800
9	Air flue gas inside furnace	N	ASTM-A335 Gr.P-22	80 (¾ Inch)	ASTM-A182 Gr.F-22	ASTM-A-182 Gr.F6a	3000lb	800
10.	Purge Air	O	ASTM-A106 Gr.C	80 (¾ Inch)	ASTM-A105	SS316	3000lb	800
11.	DM Cooling water	P	ASTM-A312 TP 316	80/40 (1/2 Inch)	ASTM – A 182 F 316	SS316	3000lb	800
12.	CW & ACW	Q	ASTM-A106 Gr.C	80 (1/2 Inch)	ASTM-A105	SS316	3000lb	800

**Note:-**

- 1). Above requirements are minimum to be complied by bidder. Rating of piping / fittings / valves etc. is subjected to be approved by owner as per the final design pressure & temperature finalized during the detailed engineering, as per ANSI B 31.1.
- 2). In case temperature is more than 540 deg C, the material shall be P-91 only.
- 3). Material shall be compatible with that of the impulse pipe material and design parameter.
- 4). For DM Plant or DM water services, complete erection Hardware material shall be SS316 only.





**TECHNICAL SPECIFICATION FOR  
MISCELLANEOUS TANKS  
SUB-VENDOR LIST  
ANNEXURE-I**

SPECIFICATION NO. PE-TS-412-167-A001

VOLUME II-B

SECTION 'E'

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**ANNEXURE-I  
LIST OF MAKES OF SUB-VENDOR ITEMS  
MISCELLANEOUS TANKS**



**TECHNICAL SPECIFICATION FOR  
MISCELLANEOUS TANKS  
SUB-VENDOR LIST  
ANNEXURE-I**

SPECIFICATION NO. PE-TS-412-167-A001

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**SUB-VENDORS - MISCELLANEOUS TANKS**

S.NO	ITEM	SUB-VENDORS	PLACE	TECHNICAL LIMIT
1	CS PIPES ERW	TISCO	JAMSHEDPUR	UP TO 350 NB
		SAIL	ROURKELA	
		SURYA ROSHNI	BAHADURGARH	UP TO 400 NB
		JINDAL	GHAZIABAD	UP TO 350 NB
		RATNAMANI	KUTCH	UP TO 400 NB
		MAHARASHTRA SEAMLESS	RAIGARH	UP TO 500 NB
		WELSPUN	ANJAR	UP TO 400 NB (IS 3589)
2	CS PIPES SEAMLESS	MAHARASHTRA SEAMLESS	RAIGARH	UP TO 350 NB
		ISMT	AHMEDNAGAR	UP TO 150 NB
		JINDAL SAW	NASHIK	
		REMI METAL GUJRAT LTD	BHARUCH	UP TO 150 NB HOT FINISH & UPTO 100NB COLD FINISH
		ISMT	BARAMATI	UP TO 200 NB
3	SS PIPES	REMI	TARAPUR	
		RATNAMANI	KUTCH	
		APEX TUBES	BEHROR (ALWAR)	
		PRAKASH STEELAGE LTD	MUMBAI	SS SEAMLESS PIPE UPTO 50MM
		SUMITAMO	JAPAN	
4	STRUCTURAL STEEL / MS-PLATE	SAIL		
		ESSAR STEEL		
		TISCO		
		RINL		
		JINDAL		
		M/S UTTAM VALUE STEEL (LLOYDS)		
		ISPAT		
		JSW		
		INDIAN IRON & STEEL CO. LTD		
5	GATE, GLOBE AND CHECK (STAINLESS STEEL VALVES)	A.V. VALVES LTD	AGRA	
		FLUIDLINE VALVES COMPANY PVT.LTD.	GHAZIABAD	
		M/S GM ENGINEERING	RAJKOT	
		INTERVALVE (INDIA) LTD.	PUNE	A) STEEL GATE VALVES: UPTO 50NB, #800 AND 65NB TO 150NB, #150 B) STEEL GLOBE VALVES: UPTO 50NB, #800 AND 65NB TO 100NB, #150 C) SUPPLIER NOT REGISTERED FOR NR VALVES
		LEADER VALVES LTD.	JALANDHAR	
		NITON VALVE INDUSTRIES PVT LTD	MUMBAI	
		NSSL LIMITED.	NAGPUR	
		STEEL STRONG VALVES (I) PVT.LTD.,	MUMBAI	LIMIT AS PER VD FILE AS ATTACHED IN SHEET 2
		VALTECH INDUSTRIES	MUMBAI	CAST CARBON & ALLOY STEEL - VALVE/RATING/SIZE- GV/150/900, GV/300/400, GV/600/300, GV/GLV/NRV/900/250, GLV/300/300, GLV/150/350/, SCNRV/150/700, SCNRV/300/350, SCNRV/600/250.



**TECHNICAL SPECIFICATION FOR  
MISCELLANEOUS TANKS  
SUB-VENDOR LIST  
ANNEXURE-I**

SPECIFICATION NO. PE-TS-412-167-A001

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		V.K. VALVES PVT. LTD.,	JALANDHAR	
		WEIR BDK VALVES	NEW DELHI	
		AUDCO		
		OSWAL INDUSTRIES		
6	<b>GATE, GLOBE AND CHECK (CS STEEL VALVES)</b>	A.V. VALVES LTD	AGRA	
		ATAM VALVES PVT. LTD.	JALANDHAR	
		FLUIDLINE VALVES COMPANY PVT.LTD.	GHAZIABAD	
		M/S GM ENGINEERING	RAJKOT	
		INTERVALVE (INDIA) LTD.	PUNE	A) STEEL GATE VALVES: UPTO 50NB, #800 AND 65NB TO 150NB, #150 B) STEEL GLOBE VALVES: UPTO 50NB, #800 AND 65NB TO 100NB, #150 C) SUPPLIER NOT REGISTERED FOR NR VALVES
		LEADER VALVES LTD.	JALANDHAR	
		NITON VALVE INDUSTRIES PVT LTD	MUMBAI	
		NSSL LIMITED.	NAGPUR	
		STEEL STRONG VALVES (I) PVT.LTD.,	MUMBAI	LIMIT AS PER VD FILE AS ATTACHED IN SHEET 2
		VENUS PUMPS AND ENGG. WORKS	KOLKATA	CC/CSS-GATE-BBT-UPTO600NB CL UPTO300,GATE-PSBT UPTO250NB CL 1500,GLV-BBT-UPTO300NB CL UPTO600,SCNRV-BBT-UPTO600NB CL UPTO150,SCNRV-BBT-UPTO300NB CL 300,SCNRV-PSBT-UPTO150NB CL UPTO900
		VALTECH INDUSTRIES	MUMBAI	CAST CARBON & ALLOY STEEL - VALVE/RATING/SIZE- GV/150/900,GV/300/400, GV/600/300, GV/GLV/NRV/900/250, GLV/300/300,GLV/150/350/, SCNRV/150/700, SCNRV/300/350, SCNRV/600/250.
		V.K. VALVES PVT. LTD.,	JALANDHAR	
		WEIR BDK VALVES	NEW DELHI	
		AUDCO -L&T	CHENNAI / COIMBATORE	
		OSWAL INDUSTRIES		
		HITECH	AHMEDABAD	
KSB WATER PUMPS / VALVES	COIMBATORE			
KBL	KONDHAPURI			
HAWA ENGINEERS	AHMEDABAD			
BHEL	GOINDWAL			
FOURESS ENGG	MUMBAI	UPTO 600 NB, CL-300 & 300NB CL-600		
FOURESS ENGG	AURANGABAD			
7	<b>LEVEL INDIATOR FLOAT AND BOARD TYPE</b>	FLOW STAR	FARIDABAD	
		SCIENTIFIC DEVICES	MUMBAI	
		GAUGES BOURDEN	PANVEL	
		PUNE TECHTROL	PUNE	
		SBEM	PUNE	
		LEVCON	KOLKATA	
		SIGMA	MUMBAI	

	<b>TECHNICAL SPECIFICATION FOR</b>		SPECIFICATION NO. PE-TS-412-167-A001	
	<b>MISCELLANEOUS TANKS</b>		VOLUME II-B	SECTION 'E'
	<b>SUB-VENDOR LIST</b>		REVISION 01	DATE: 09/07/2015
	<b>ANNEXURE-I</b>		PAGE 4 of 5	

		CHEMTROL		
		DK INSTRUMENT	KOLKATA	
		V AUTOMAT	DELHI	
8	PAINT	ASIAN PAINT		
		BERGER		
		KANSAI NEROLAC		
		JOTUN		
		SHALIMAR		
		JENSON & NICHOLSON (I) LTD		
		CDC CARBOLINE (I) LTD.		
		ADDISON PAINTS LTD		
		GRAND POLYCOAT		
		BOMBAY PAINTS		
		HEMPLE PAINTS (SINGAPORE)		
		AKZONOBEL COATINGS		
		9	FITTINGS (MS/SS)	PIPE FIT ENGINEERS
GUJRAT INFRA PIPES	VADODARA			
MS FITTINGS	KOLKATA			
TUBE PRODUCT	VADODARA			
SIDDARTH & GAUTAM	FARIDABAD			
EBY	MUMBAI			
NL HAZRA	KOLKATA			
EXCEL METAL				
INTERTECH				
FITTECH				
METAL LLOYDS	MUMBAI			
TRUE FORGE	FARIDABAD			
10	SEAL POT / NAOH BREATHER	SELF MANUFACTURED ITEM		
	INSPECTION CATEGORIZATION			
	1. CAT I :INSPECTION BY OWNER, BHEL/BHEL NOMINATED TPIA & VENDOR .MDCC WILL BE ISSUED BASED ON INSPECTION REPORT IN LINE ITH APPROVED QAP.			
	2. CAT II:INSPECTION BY BHEL/BHEL NOMINATED TPIA & VENDOR. MDCC WILL BE ISSUED BASED ON INSPECTION REPORT IN LINE ITH APPROVED QAP.			
	3. CAT III: MDCC WILL BE ISSUED BASED COC & MTC ISSUSD BY VENDOR AND VERIFICATION BY BHEL/OWNER IN LINE WITH APPROVED QAP/CHECK LIST			

The make of Sub-vendor items shall be generally as indicated above which is subject to customer / BHEL approval during detail engineering.

Make of any unlisted items shall be subject to customer / BHEL approval during detail engineering. For such items, bidder to furnish list of sub-vendors during detail engineering stage for Customer / BHEL's review and approval. Bidder shall furnish following supporting documentation within 1 month of placement of LOI. Thereafter no request for additional sub-vendor shall be entertained.



**TECHNICAL SPECIFICATION FOR  
MISCELLANEOUS TANKS  
SUB-VENDOR LIST  
ANNEXURE-I**

SPECIFICATION NO. PE-TS-412-167-A001

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SECTION 'E'

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- a) Documentation to show that the equipment /system has been supplied for a plant of similar or higher capacity.
- b) Documentation in the form of certificate that the equipment/system has been operating satisfactorily for two years as on the scheduled date of bid opening.

The successful bidder will get the makes of all items approved from Customer/ Consultant during detail engineering within two months of placement of LOI. The complete list will be necessarily be submitted within one month of placement of LOI to ensure timely placement of order for BOIs

Bidder to assess the capability of their proposed sub-vendors in terms of preparation of drawings, calculations, documents, quality assurance, supply of material etc. as per project schedule before placing the order on them.

Dealers are not acceptable for any item of the package. Bidder shall procure all items including plates, structural, flanges; counter flanges etc. from approved sub vendor only.