



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-2-Aug-18

CORRIGENDUM- 04

PROJECT	:	3X800 MW PVUNL PATRATU TPP PHASE-1
PACKAGE	:	FUEL OIL HANDLING AND STORAGE SYSTEM
ENQUIRY NO	:	PE/PG/PA1/E-5989/2018 Dt. 03.07.2018

Type of Corrigendum			
Technical Corrigendum -	☒	Commercial Corrigendum -	☒

In reference to the above mentioned tender enquiry for **FUEL OIL HANDLING AND STORAGE SYSTEM** package

Please note the following.

1. Amendment to Technical Specification
2. Guideline For Conduct Of Conciliation Proceedings (Annexure-C)
3. Revised Integrity Pact (Annexure-1)

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

Yours faithfully,

For and on behalf of BHEL

Vinit Kumar Verma
Dy. Manager

PATRATU VIDYUT UTPADAN NIGAM LIMITED
3X800MW PVUNL PATRATU TPP PHASE-1

AMENDMENT NO – 02

FUEL OIL HANDLING SYSTEM

SPECIFICATION NO.: PE-TS-434-166-A001



BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT

NOIDA

	FUEL OIL HANDLING SYSTEM 3X800 MW PVUNL PATRATU TPP PHASE-1		SPEC. No: PE-TS-434-166-A001	
			AMENDMENT NO. - 2	
			DATE	01.08.2018
			SHEET 1 OF 1	
AMENDMENT / addition TO EXISTING CLAUSES OF FOHS TECHNICAL SPECIFICATION. Bidder to note that existing discription 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.	Existing clauses	Amendment/ Addition	Modification /To be read as.	
1.0	ANNEXURE-IV - INPUT DRAWINGS & DOCUMENTS b) P&IDs OF FOHS Doc. No. 9585-001-130-PVM-L-001 R-01. GA/Nozzle Orientation of HFO, LDO Storage Tank & LDO DAY OIL TANK 9585-001-130-PVM-B-004 R-0 c) G.A. OF DM STORAGE TANK 9585-001-131-PVM-B-002 R-0. d) GA of Condensate Storage Tank 9585-001-131-PVM-B-004 R-0.	AMENDMENT	b) P&IDs OF FOHS Doc. No. 9585-001-130-PVM-L-001—R02. Summary of changes are as below:- - Pipe size of unloading header and discharge header for HFO system. - Inlet and outlet nozzle of HFO tanks and return line from P&H and spares connections. - Outlet nozzle of LDO tanks and return line from P&H and spares connections. - Flow of suction heater changed to 221 T/hr. Bidder to refer P&ID for all the changes marked with revision No. 2 for detail. Further, corresponding nozzles in GAD title “GA/Nozzle Orientation of HFO, LDO Storage Tank & LDO DAY OIL TANK “ shall be changed accordingly. c) G.A. OF DM STORAGE TANK 9585-001-131-PVM-B-002 –R01 d) GA of Condensate Storage Tank 9585-001-131-PVM-B-004 –R01	
3	SPECIFICATION NO. PE-TS-434-166-A001 / Page no. 52 to 56 of 598 - DATA SHEET FOR DM WATER STORAGE TANKS AND SKETCH R-0. - DATA SHEET FOR CONDENSATE STORAGE TANK AND SKETCH R-0.	AMENDMENT	- DATA SHEET FOR DM WATER STORAGE TANKS AND SKETCH R-01. - DATA SHEET FOR CONDENSATE STORAGE TANK AND SKETCH R-01.	

COMPUTER FILE NAME: PE-DG-434-166-A101

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PE-DG-434-166-A101

DRAWING No.

LEGEND

SYMBOL	D E S C R I P T I O N
	HOSE
	HFO PIPE WITH INSULATED & STEAM TRACED
	COIL HEATER
	PUMP
	LOCAL DRAIN
	MOTOR
	LIMIT SWITCH
	PRESSURE INDICATOR
	PRESSURE TRANSMITTER
	DIFFERENTIAL PRESSURE INDICATOR TRANSMITER
	FLOW METER (CORIOLIS TYPE)
	FLOW GAUGE
	LEVEL TRANSMITTER(RADAR/ULTRASONIC TYPE)
	LEVEL INDICATOR
	LEVEL SWITCH
	TEMPERATURE INDICATOR
	TEMPERATURE ELEMENT + TEMPERATURE TRANSMITTER
	SIGNAL TO DCS
	STEAM TRAP
	SIMPLEX STRAINER
	STEAM CONTROL VALVE
	GLOBE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	PLUG VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	BALL VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	GATE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	NON RETURN VALVE
	RELIEF VALVE
	REDUCER/EXPENDER

PIPE NOMENALATURE

350

HFO

3

50

INSULATION THICKNESS (IN MM)

NO. OF STEAM TRACERS

SERVICE FLUID

PIPE SIZE IN NB

KKS NOMENALATURE

9

ENC

10

AA

001

Instrument number key

Equipment/Instrument Key

Area key

Function key

Unit number identifier

EQUIPMENTS DETAIL:-

S.No.	TAG No.	NAME OF EQUIPMENT	QTY
1	9ENB10BB001, 9ENB11BB001	HFO STORAGE TANK	2
2	9ENR10BB001	OIL WATER SEPARATOR TANK	1
3	9ENC11AP001, 9ENC12AP001, 9ENC13AP001, 9ENC14AP001, 9ENC15AP001	HFO UNLOADING PUMPS	5
4	9ENC11AT001, 9ENC11AT002, 9ENC12AT001, 9ENC12AT002, 9ENC13AT001, 9ENC13AT002, 9ENC14AT001, 9ENC14AT002, 9ENC15AT001, 9ENC15AT002	HFO SUCTION STRAINER	10
5	9ENB10AC001, 9ENB11AC001	HFO SUCTION HEATER	2
6	9ENB10AH001, 9ENB11AH001, 9ENB20AH001	FLOOR COIL HEATER	3
7	9ENR10AP001, 9ENR10AP002	OIL RECOVERY PUMP (OWS)	2
8	9ENB30AP001, 9ENB30AP002	HFO U/L P/H SUMP PUMP	2
9	ENB31AP001, ENB31AP002, ENB32AP001, ENB32AP002	U/L HEADER TRENCH AND DRAIN TRENCH SUMP PUMP	4

VALVE SELECTION CRITERIA FOR FUEL LINE:

300NB & BELOW: BALL/ PLUG VALVE	50 NB & ABOVE: SWING CHECK VALVE,
ABOVE 300NB: GATE VALVE	BELOW 50NB: LIFT CHECK VALVE

MOC OF OIL PIPE: API-5L GR. B ERW

PIPE SIZE	OUTSIDE DIA (MM)	THICKNESS (MM)
15NB	21.34	2.77
20NB	26.67	2.87
25NB	33.40	3.38
40NB	48.26	3.68
50NB	60.32	3.91
100/80/65NB	114.3/ 88.30/ 73.20	3.96
150NB	168.27	4.78
250/200NB	273.05/ 219.07	5.56
350/300NB	355.60/ 323.85	6.35
400NB	406.40	7.14
450/500NB	457/508	7.14
450NB AND ABOVE SIZE PIPE CAN BE 8.0MM PLATE FABRICATED.		
STEAM/CONDENSATE LINE: ASTM 106 GR. B, STD / 40 SCH.		

NOTES:

1. PUMP HEAD SHALL BE AS PER CALCULATION.

2. ALL VALVES SHOULD BE LOCATED AT GRADE/MAN APPROACHABLE LEVEL.

3. VENTS AND DRAINS SHALL BE PROVIDED AT THE HIGHEST AND LOWEST POINTS RESPECTIVELY AS PER LAYOUT REQUIREMENT.

4. ALL INSTRUMENTS ISOLATION VALVES SHALL BE GLOBE VALVE.

5. ALL HFO LINES, DRAIN OIL LINES, PUMPS, STRAINER, HFO TANKS, DRAIN OIL AND TANKS ARE STEAM TRACED. HFO PUMP AND STRAINER SHALL BE STEAM JACKETED.

6. ALL HFO LINES SHALL BE STEAM TRACED AS FOLLOWS:-

S.NO.	HFO LINE SIZE	NO. OF TRACERS	TRACER LINE SIZE
1	100 NB AND BELOW	1	20NB
2	150NB TO 300NB	2	20NB
3	350NB AND ABOVE	3	20NB

7. ALL DRAIN & VENT VALVES ARE IN NORMALLY CLOSE CONDITION.

8. SIZE OF INLET AND OUTLET SPARE CONNECTIONS SHALL BE SAME AS INLET AND OUTLET NOZZLES.

9. ALL VALVES USED IN OIL LINES SHALL BE FIRE SAFE.

10. ALL HFO, STEAM AND CONDENSATE LINES/EQUIPMENTS SHALL BE INSULATED.

11. COUNTER FLANGES WITH FASTENER & GASKETS AT TERMINAL POINT WILL BE SUPPLY BY VENDER.

12. DRAIN OIL TANK SHALL BE INSULATED.

13. THE INSTRUMENTS AND VALVES FURNISHED IN THE P&ID IS A MINIMUM REQUIREMENT, HOWEVER ANY INSTRUMENT/VALVE REQUIRED FOR COMPLETENESS OF THE SYSTEM SHALL BE PROVIDED BY BIDDER WITHOUT ANY COST IMPLICATION. FOR REDUNDANCY CRITERIA, VENDOR TO FOLLOW THE CLAUSE PERTAINING TO REDUNDANCY CRITERIA MENTIONED IN THE SPECIFIC TECHNICAL REQUIREMENT OF C&I.

434

CONTRACT

DISTRIBUTION

TO	No. OF	REV.	DATE	ALTD	CHD	APPD

2

NTPC DRG No.

9585-001-130-PVM-L-001

CUSTOMER

NTPC Limited
(A GOVT. OF INDIA ENTERPRISE)

PACKAGE:

FUEL OIL UNLOADING AND STORAGE SYSTEM.

PROJECT: -

3x800 MW Patratu Super Thermal Power Station
Expansion Phase-I

BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.

DEPT CODE

M

	NAME	SIGN	DATE
DRN	SC	Sd/-	23.06.2018
DESN	SC/RG	Sd/-	23.06.2018
CHD	HK	Sd/-	23.06.2018
APPD	SKB	Sd/-	23.06.2018

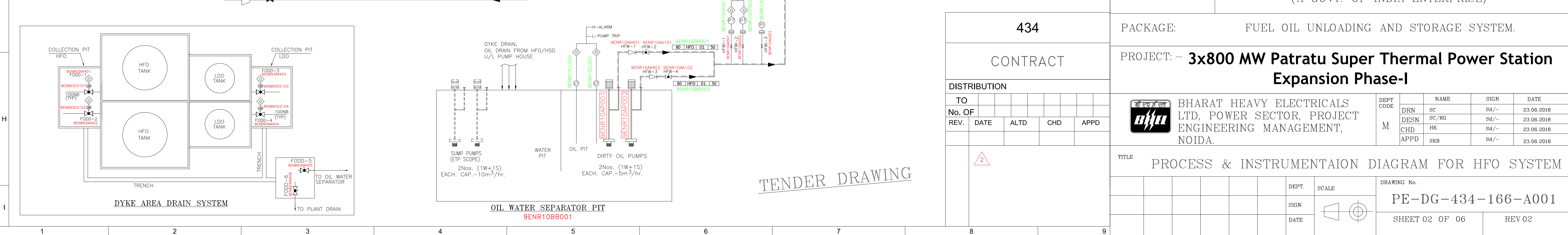
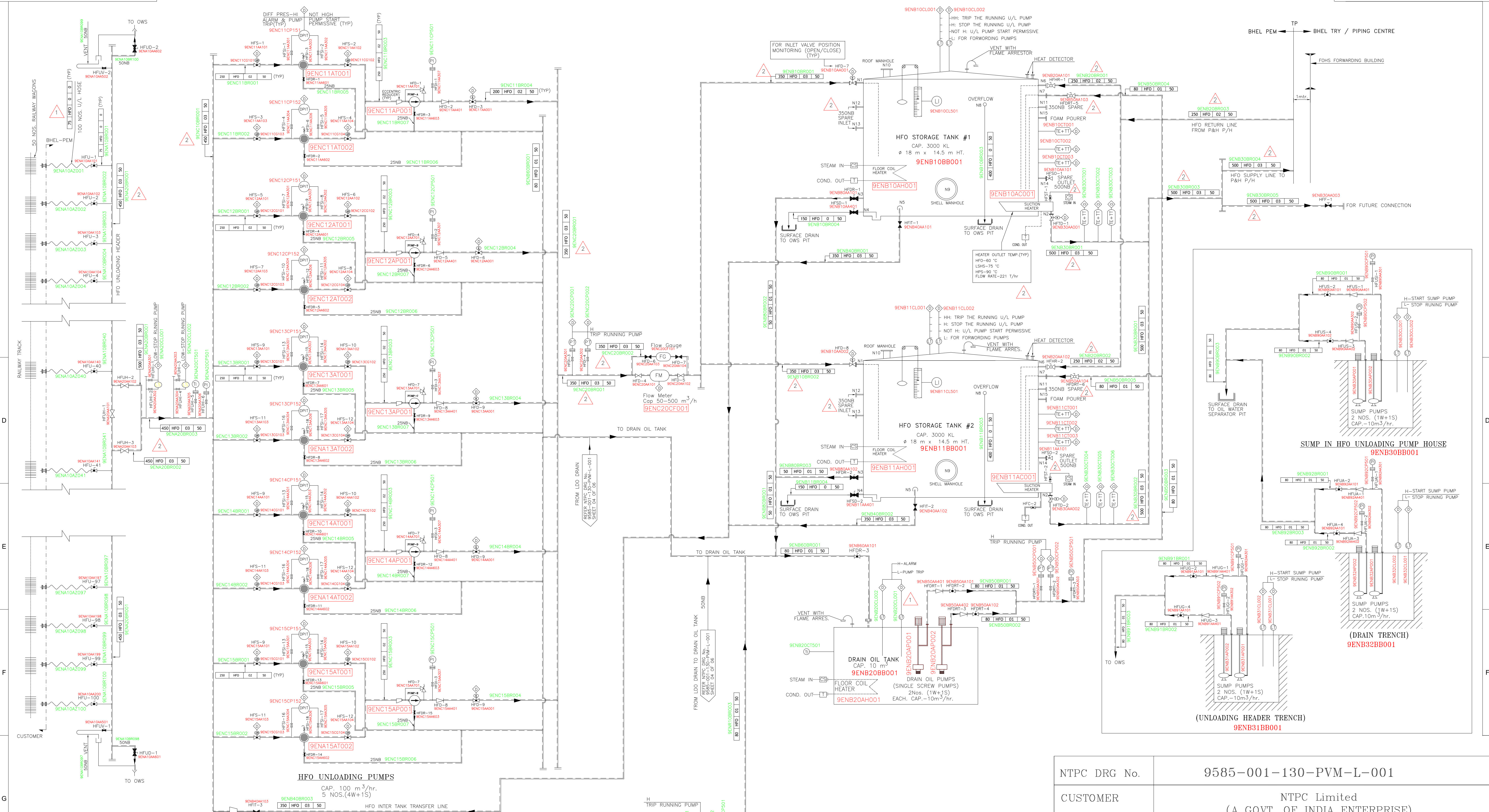
TITLE

PROCESS & INSTRUMENTAION DIAGRAM FOR HFO SYSTEM

							DEPT.	SCALE	DRAWING No.
							SIGN		PE-DG-434-166-A001
							DATE		SHEET 01 OF 06
									REV 02

TENDER DRAWING

SIZE-A1



NTPC DRG No.				9585-001-130-PVM-L-001						
CUSTOMER				NTPC Limited (A GOVT. OF INDIA ENTERPRISE)						
PACKAGE:				FUEL OIL UNLOADING AND STORAGE SYSTEM.						
PROJECT: – 3x800 MW Patratu Super Thermal Power Station Expansion Phase-I										
		BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.			DEPT CODE M		NAME	SIGN	DATE	
						DRN	SC	Sd/-	23.06.2018	
						DESN	SC/RG	Sd/-	23.06.2018	
						CHD	HK	Sd/-	23.06.2018	
						APPD	SKB	Sd/-	23.06.2018	
TITLE										
PROCESS & INSTRUMENTAION DIAGRAM FOR HFO SYSTEM										
						DEPT.	SCALE		DRAWING No.	
						SIGN			PE-DG-434-166-A001	
						DATE				
							SHEET 02 OF 06		REV 02	

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PE-DG-434-166-A102

DRAWING No.

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11

CUSTOMERS DRAWING No.

LEGEND

SYMBOL	DESCRIPTION
	HOSE
	LDO PIPE LINE
	PUMP
	LOCAL DRAIN
	MOTOR
	LIMIT SWITCH
	PRESSURE INDICATOR
	PRESSURE TRANSMITTER
	DIFFERENTIAL PRESSURE INDICATOR TRANSMITER
	FLOW METER (CORIOLIS TYPE)
	FLOW GAUGE
	LEVEL TRANSMITTER(RADAR/ULTRASONIC TYPE)
	LEVEL INDICATOR
	LEVEL SWITCH
	SIGNAL TO DCS
	SIMPLEX STRAINER
	GLOBE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	PLUG VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	BALL VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	GATE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
	NON RETURN VALVE
	RELIEF VALVE
	REDUCER/EXPENDER

EQUIPMENTS DETAIL:-

S.No.	TAG No.	NAME OF EQUIPMENT	QTY
1	9EGB10BB001, 9EGB11BB001	LDO STORAGE TANK	2
2	9EGC11AP001, 9EGC12AP001	LDO UNLOADING PUMPS	2
3	9EGC11AT001, 9EGC11AT002, 9EGC12AT001, 9EGC12AT002, 9EGC31AT001, 9EGC31AT002	SUCTION STRAINER	6
4	9EGB12BB001	LDO DAY OIL TANK	1
5	9EGC31AP001, 9EGC31AP002	LDO TRANSFER PUMPS	2

KKS NOMENALATURE

9	ENC	10	AA	001
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INSUMENT NUMBER KEY

EQUIPMENT/INSTRUMENT KEY

AREA KEY

FUNCTION KEY

UNIT NUMBER IDENTIFIER

PIPE NOMENALATURE

XXX	XXX	XXX	XXX
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INSULATION THICKNESS (IN MM)

NO. OF STEAM TRACERS

SERVICE FLUID

PIPE SIZE IN NB

VALVE SELECTION CRITERIA FOR FUEL LINE:

300NB & BELOW: BALL/ PLUG VALVE	50 NB & ABOVE: SWING CHECK VALVE,
ABOVE 300NB: GATE VALVE	BELOW 50NB: LIFT CHECK VALVE

NOTES:

1. ALL VALVES SHOULD BE LOCATED AT GRADE/MAN APPROACHABLE LEVEL.

2. VENTS AND DRAINS SHALL BE PROVIDED AT THE HIGHEST AND LOWEST POINTS RESPECTIVELY.

3. HIGHER SIZE HAS BEEN PROVIDED BASED ON PIPE SIZING CRITERIA AND AS PER TENDER DRG.

4. ALL INSTRUMENTS ISOLATION VALVES SHALL BE GLOBE VALVE.

5. ALL DRAIN & VENT VALVES ARE IN NORMALLY CLOSE CONDITION.

6. THE INSTRUMENTS AND VALVES FURNISHED IN THE P&ID IS A MINIMUM REQUIREMENT, HOWEVER ANY INSTRUMENT/VALVE REQUIRED FOR COMPLETENESS OF THE SYSTEM SHALL BE PROVIDED BY BIDDER WITHOUT ANY COST IMPLICATION. FOR REDUNDANCY CRITERIA, VENDOR TO FOLLOW THE CLAUSE PERTAINING TO REDUNDANCY CRITERIA MENTIONED IN THE SPECIFIC TECHNICAL REQUIREMENT OF C&I.

434

CONTRACT

DISTRIBUTION

TO								
No. OF								
REV.	DATE	ALTD	CHD	APPD				

2

NTPC DRG No.

9585-001-130-PVM-L-001

CUSTOMER

NTPC Limited
(A GOVT. OF INDIA ENTERPRISE)

PACKAGE:

FUEL OIL UNLOADING AND STORAGE SYSTEM.

PROJECT:-

3x800 MW Patratu Super Thermal Power Station
Expansion Phase-I

BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.

DEPT CODE
M

	NAME	SIGN	DATE
DRN	SC	Sd/-	23.06.2018
DESN	SC/RG	Sd/-	23.06.2018
CHD	HK	Sd/-	23.06.2018
APPD	SKB	Sd/-	23.06.2018

TITLE

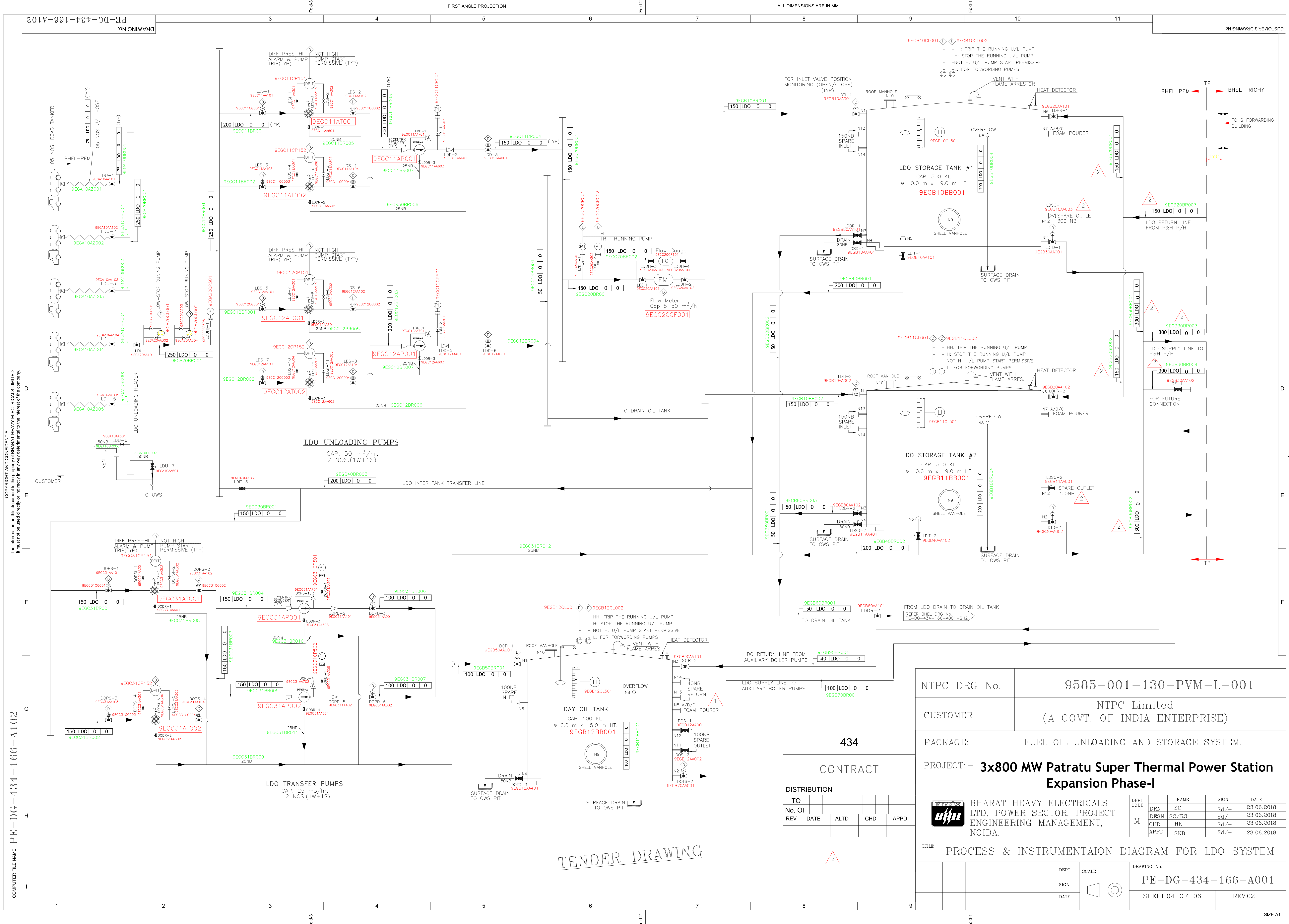
PROCESS & INSTRUMENTAION DIAGRAM FOR LDO SYSTEM

							DEPT.	SCALE	DRAWING No.
							SIGN		PE-DG-434-166-A001
							DATE		SHEET 03 OF 06

REV02

TENDER DRAWING

SIZE-A1



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REV.	DATE	ALTD	CHD	APPD	

NTPC DRG No.		9585-001-130-PVM-L-001				
CUSTOMER		NTPC Limited (A GOVT. OF INDIA ENTERPRISE)				
PACKAGE:		FUEL OIL UNLOADING AND STORAGE SYSTEM.				
PROJECT: –		3x800 MW Patratu Super Thermal Power Station Expansion Phase-I				
	BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.		DEPT	NAME	SIGN	DATE
			DRN	SC	Sd/-	23.06.2018
			DESN	SC/RG	Sd/-	23.06.2018
			CHD	HK	Sd/-	23.06.2018
			APPD	SKB	Sd/-	23.06.2018
TITLE PROCESS & INSTRUMENTAION DIAGRAM FOR LDO SYSTEM						
			</			

SIZE-A1

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PE-DG-434-166-A101

DRAWING No.

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CUSTOMER'S DRAWING No.

LEGEND

SYMBOL	D E S C R I P T I O N
----	STEAM LINE WITH INSULATION
~~~~	HOSE
•••••	CONDENSATE LINE WITH INSULATION
≡≡≡	INSTRUMENT AIR LINE
=====	DM WATER LINE
---Z---	COIL HEATER
~~~~~	HEATING COIL
↓	LOCAL DRAIN
(TE+TI)	TEMPERATURE ELEMENT + TEMPERATURE TRANSMITTER
(TI)	TEMPERATURE INDICATOR
(PI)	PRESSURE INDICATOR
(PT)	PRESSURE TRANSMITTER
(TE)	TEMPERATURE ELEMENT
◇	SIGNAL TO DCS
△+T+△	TRAP WITH INBUILT STRAINER
○	SIMPLEX STRAINER
Y	Y-TYPE STRAINER
CS	CONTROL STATION
◇/◇	GLOBE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
◇/◇	PLUG VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
◇/◇	BALL VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
◇/◇	GATE VALVE (NORMALLY OPEN/ NORMALLY CLOSED)
▽	NON RETURN VALVE
▽	PRESSURE RELIEF VALVE
∇	DISC CHECK VALVE
◇	CONTROL VALVE
SP	SMART POSITIONER
▽	REDUCER/EXPENDER

EQUIPMENTS DETAIL:-

S.No.	TAG No.	NAME OF EQUIPMENT	QTY
1	9ENB10BB001, 9ENB11BB001	HFO STORAGE TANK	2
3	9ENB20BB001	DRAIN OIL TANK	1
4	9ENC11AP001, 9ENC12AP001, 9ENC13AP001	HFO UNLOADING PUMPS	3
5	9ENC11AT001, 9ENC11AT002, 9ENC12AT001, 9ENC12AT002, 9ENC13AT001, 9ENC13AT002	HFO SUCTION STRAINER	6
6	9ENB10AC001, 9ENB11AC001	HFO SUCTION HEATER	2
7	9ENB10AH001, 9ENB11AH001, 9ENR10AH001	FLOOR COIL HEATER	3

EQUIPMENTS DETAIL:-

S.No.	TAG No.	NAME OF EQUIPMENT	QTY
1	9ENB10BB001, 9ENB11BB001	HFO STORAGE TANK	2
2	9ENR10BB001	OIL WATER SEPARATOR TANK	1
3	9ENC11AP001, 9ENC12AP001, 9ENC13AP001, 9ENC14AP001, 9ENC15AP001	HFO UNLOADING PUMPS	5
4	9ENC11AT001, 9ENC11AT002, 9ENC12AT001, 9ENC12AT002, 9ENC13AT001, 9ENC13AT002, 9ENC14AT001, 9ENC14AT002, 9ENC15AT001, 9ENC15AT002	HFO SUCTION STRAINER	10
5	9ENB10AC001, 9ENB11AC001	HFO SUCTION HEATER	2
6	9ENB10AH001, 9ENB11AH001	FLOOR COIL HEATER	2
7	9ENR10AP001, 9ENR10AP002	OWS SUMP PUMPS	2
8	9ENB30AP001, 9ENB30AP002	HFO U/L P/H SUMP PUMP	2
9	ENB31AP001, ENB31AP002, ENB32AP001, ENB32AP002	U/L HEADER TRENCH AND DRAIN TRENCH SUMP PUMP	4

NOTES:

1

1. ALL STEAM/CONDENSATE LINES SHALL BE INSULATED.

2. STEAM TRAPS FOR SUCTION HEATER & FLOOR COIL HEATER OF STORAGE TANKS SHALL BE OF IB TYPE. ALL OTHER STEAM TRAPS SHALL BE OF TD TYPE.

3. FOR STEAM LINES & TRACER LINES, TRAPS SHALL BE PROVIDED AT EVERY 30 TO 35 MTR.

4. SHELL SURFACE OF F.O. STORAGE TANKS SHALL BE INSULATED.

5. PIPE SIZES FOR ALL STEAM LINES, TRACER LINES, CONTROL STATIONS, CONDENSATE LINES ETC. SHALL BE PROVIDED AS PER APPROVED CALCULATION.

6. ALL CONTROL VALVES SHALL BE PROVIDED WITH ISOLATION VALVES AND WITH A DRAIN VALVE IN UPSTREAM AND DOWNSTREAM.

7. DELETED.

8. DELETED

9. MODULATING TYPE CONTROL VALVE FOR FLOOR COIL HEATER AND SUCTION HEATER SHALL BE PROVIDED.

10. INSTRUMENTS SHALL BE PROVIDED AS PER P&ID.

11. DRAIN FROM FLASH TANK SHALL BE DISCHARGED TO OIL WATER SEPARATOR.

12. DELETED.

13. THE INSTRUMENTS AND VALVES FURNISHED IN THE P&ID IS A MINIMUM REQUIREMENT, HOWEVER ANY INSTRUMENT/VALVE REQUIRED FOR COMPLETENESS OF THE SYSTEM SHALL BE PROVIDED BY BIDDER WITHOUT ANY COST IMPLICATION. FOR REDUNDANCY CRITERIA, VENDOR TO FOLLOW THE CLAUSE PERTAINING TO REDUNDANCY CRITERIA MENTIONED IN THE SPECIFIC TECHNICAL REQUIREMENT OF C&I.

PIPE NOMENALATURE

350	HFO	3	50
-----	-----	---	----

INSULATION THICKNESS (IN MM)

NO. OF STEAM TRACERS

SERVICE FLUID

PIPE SIZE IN NB

KKS NOMENALATURE

9	ENC	10	AA	001
---	-----	----	----	-----

Instrument number key

Equipment/Instrument Key

Area key

Function key

Unit number identifier

434

CONTRACT

DISTRIBUTION

TO									
No. OF									
REV.	DATE	ALTD	CHD	APPD					

2

NTPC DRG No.

9585-001-130-PVM-L-001

CUSTOMER

NTPC Limited
(A GOVT. OF INDIA ENTERPRISE)

PACKAGE:

FUEL OIL UNLOADING AND STORAGE SYSTEM.

PROJECT: -

3x800 MW Patratu Super Thermal Power Station
Expansion Phase-I

VIEW

BH&E

BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.

DEPT CODE
M

NAME	SIGN	DATE
DRN SC	Sd/-	23.06.2018
DESN SC/RG	Sd/-	23.06.2018
CHD HK	Sd/-	23.06.2018
APPD SKB	Sd/-	23.06.2018

TITLE

PROCESS & INSTRUMENTATION DIAGRAM FOR STEAM AND CONDENSATE SYSTEM

							DEPT.	SCALE	DRAWING No.
							SIGN		PE-DG-434-166-A103
							DATE		SHEET 05 OF 06

REV02

TENDER DRAWING

1

2

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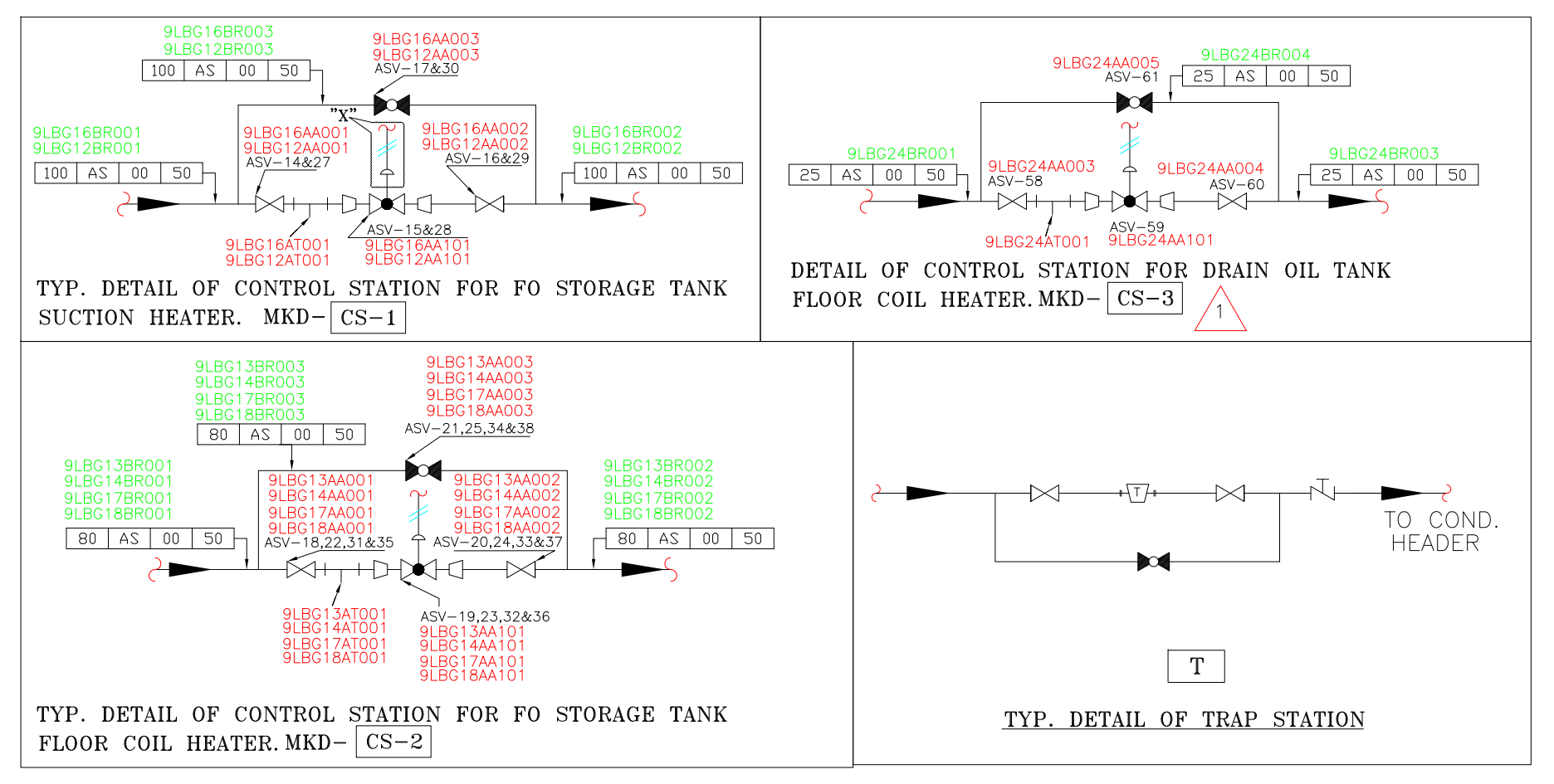
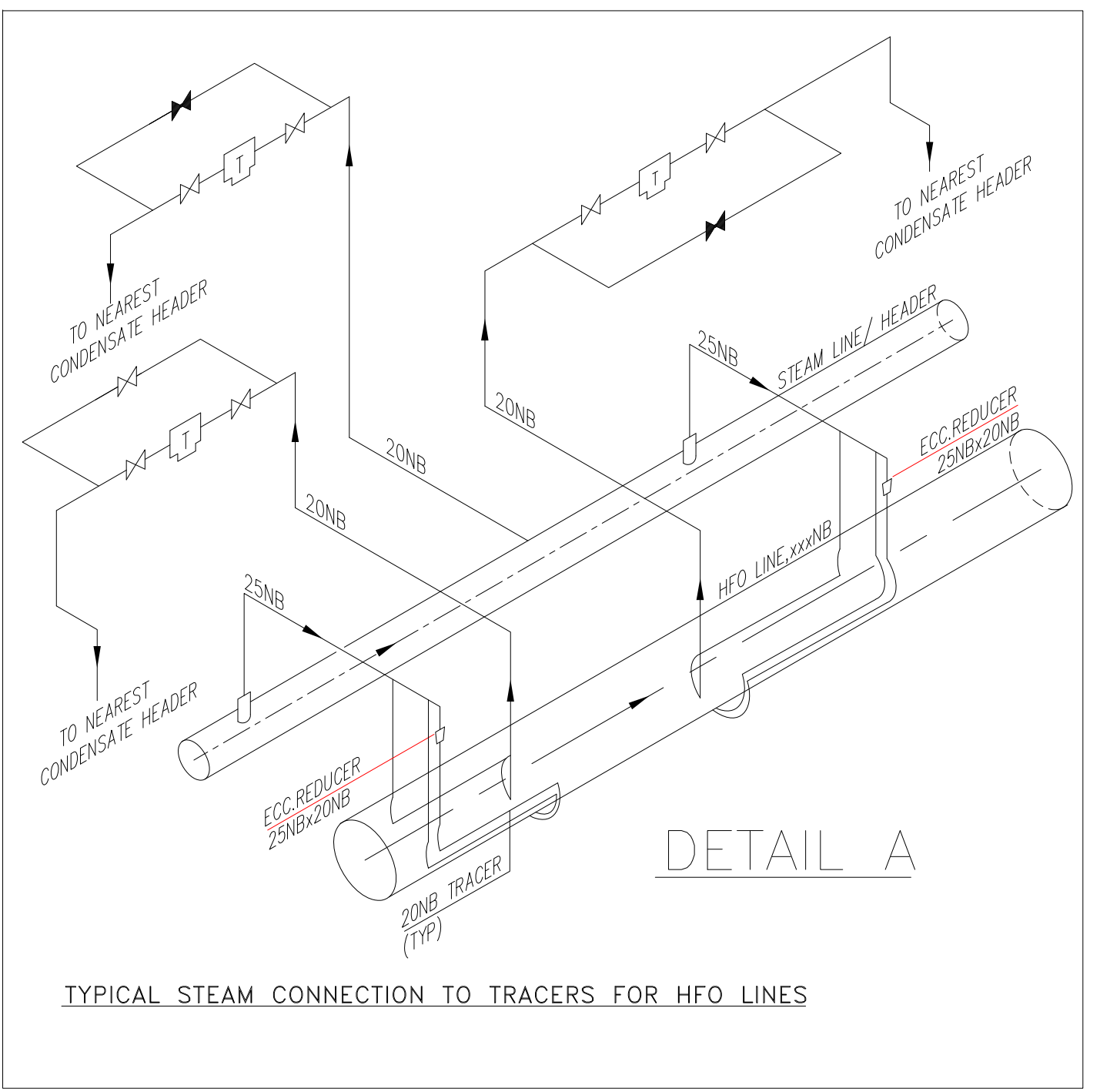
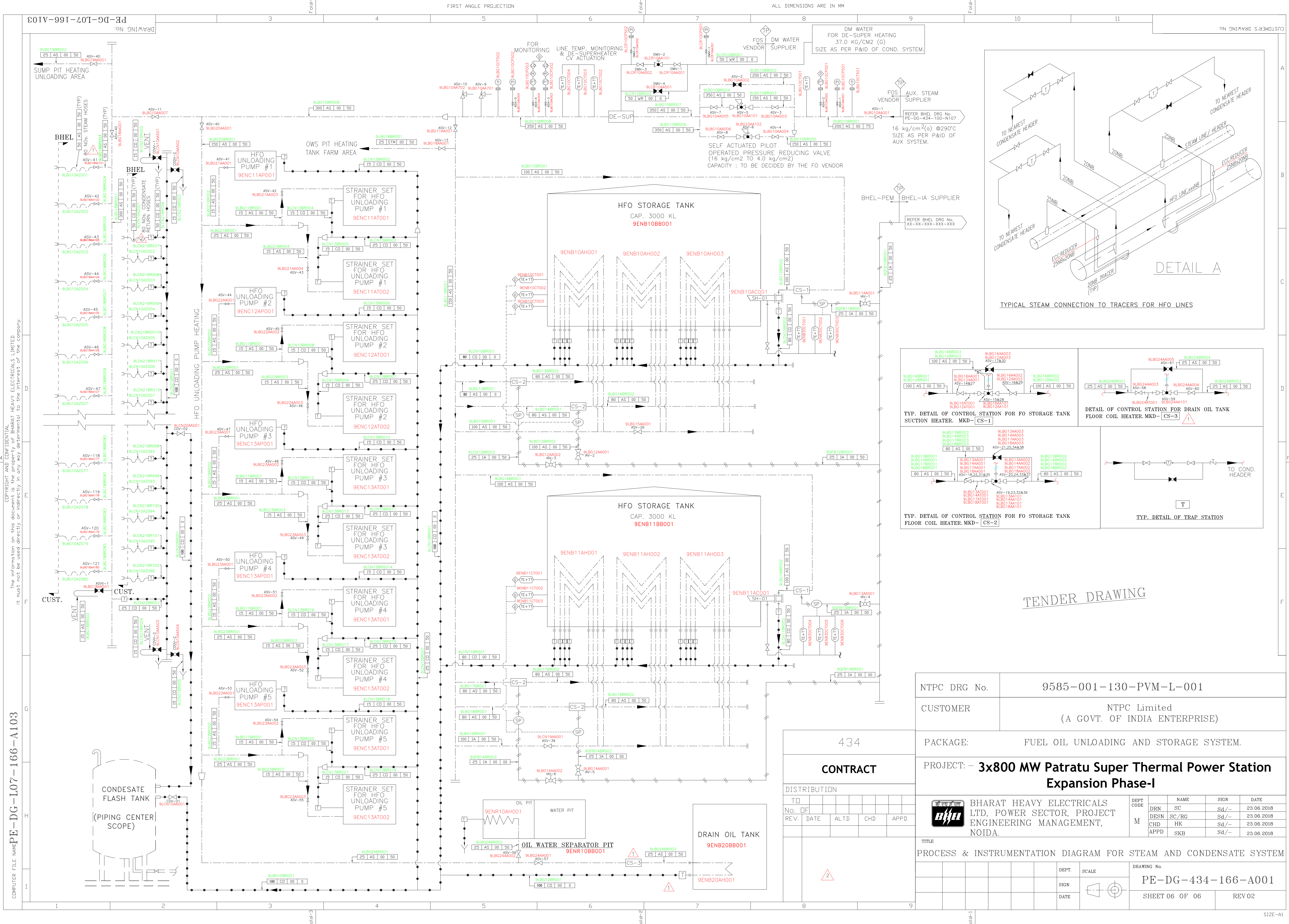
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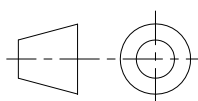
10

11

SIZE-A1



TENDER DRAWING

NTPC DRG No.			9585-001-130-PVM-L-001																							
CUSTOMER			NTPC Limited (A GOVT. OF INDIA ENTERPRISE)																							
PACKAGE:			FUEL OIL UNLOADING AND STORAGE SYSTEM.																							
PROJECT: –			3x800 MW Patratu Super Thermal Power Station Expansion Phase-I																							
			BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NOIDA.																							
			<table><tr><td rowspan="5">DEPT CODE M</td><td colspan="2">NAME</td><td>SIGN</td><td>DATE</td></tr><tr><td colspan="2">DRN SC</td><td>Sd/-</td><td>23.06.2018</td></tr><tr><td colspan="2">DESN SC/RG</td><td>Sd/-</td><td>23.06.2018</td></tr><tr><td colspan="2">CHD HK</td><td>Sd/-</td><td>23.06.2018</td></tr><tr><td colspan="2">APPD SKB</td><td>Sd/-</td><td>23.06.2018</td></tr></table>			DEPT CODE M	NAME		SIGN	DATE	DRN SC		Sd/-	23.06.2018	DESN SC/RG		Sd/-	23.06.2018	CHD HK		Sd/-	23.06.2018	APPD SKB		Sd/-	23.06.2018
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	CHD HK						Sd/-	23.06.2018																		
	APPD SKB		Sd/-	23.06.2018																						
TITLE																										
PROCESS & INSTRUMENTATION DIAGRAM FOR STEAM AND CONDENSATE SYSTEM																										
						DEPT.	SCALE		DRAWING No.																	
									PE-DG-434-166-A001																	
						DATE				SHEET 06 OF 06	REV02															

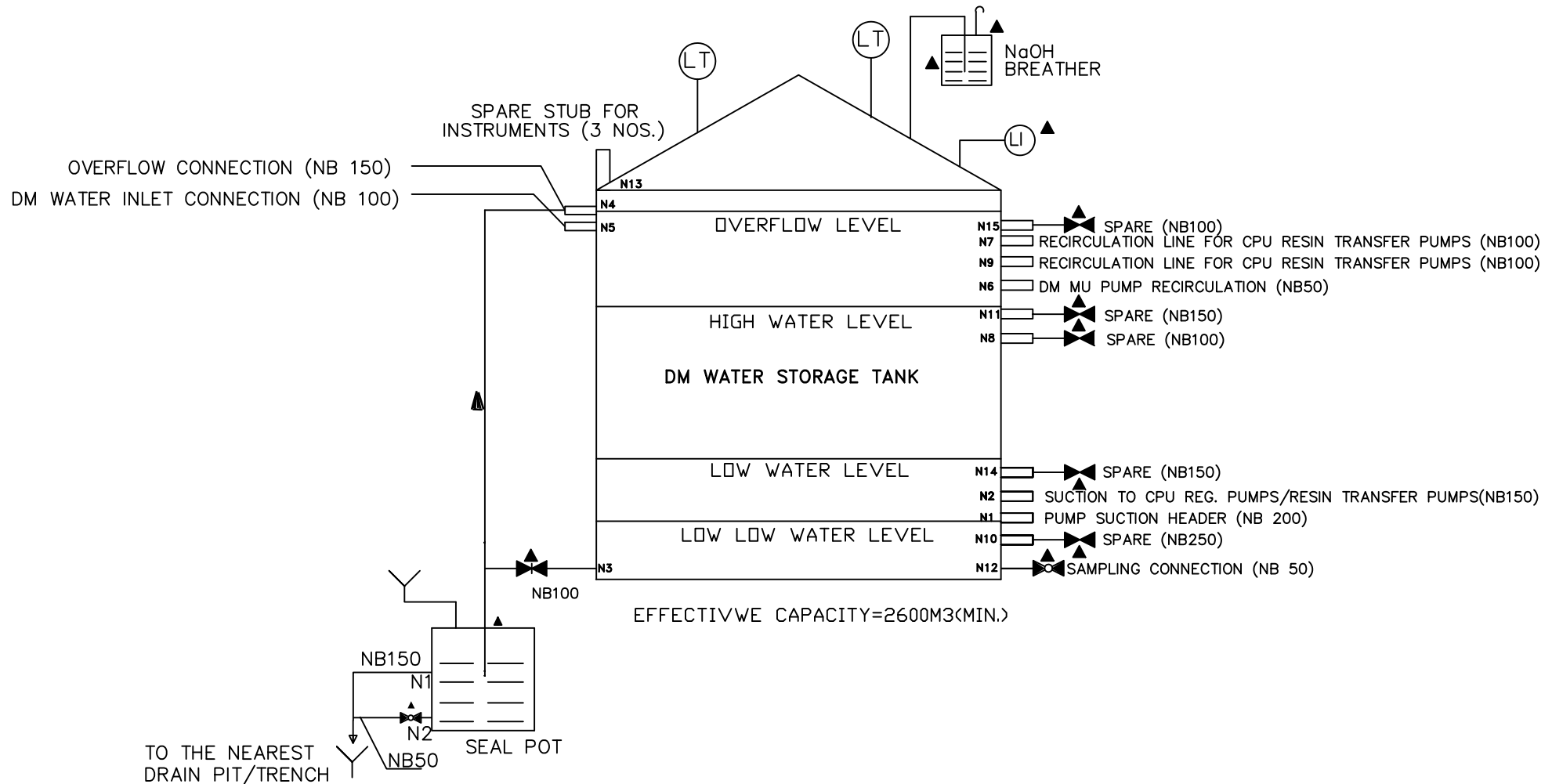
COMPUTER FILE NAME: PE-DG-L07-166-A103

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BHEL PEM	DATA SHEET FOR DM WATER STORAGE TANK		DOC NO: PE-ID-434-100-Q013
			SHEET NO: 01 OF 04
	PROJECT TITLE: PVUNL-3X800MW PATRATU STPP EXPANSION PHASE-1		REV NO: 01
1.0	SERVICE IDENTIFICATION	DM WATER STORAGE TANK	
2.0	P&ID NO.	PE-DG-434-100-N110	
3.0	SYSTEM	DM WATER SYSTEM	
4.0	CAPACITY (EFFECTIVE) (m ³)	2600 m3(MIN)	
5.0	NUMBER REQUIRED	THREE (03) NOS. FOR STATION AS PER IS:803	
6.0	STORAGE MEDIUM	DM WATER	
7.0	TYPE	VERTICAL, CYLINDRICAL	
8.0	TENTATIVE SIZE	Dia16mXHt. 15.5m	
9.0	PRESSURE CLASS	DESIGN FOR FILLED WATER HEAD / ATMOSPHERIC	
10.0	MATERIAL OF CONSTRUCTION	MILD STEEL AS PER SPECIFIED CODE	
		AS PER CL. 16.00.00 OF SUB-SECTION-A-14, SECTION-VI, PART-B OF NTPC SPECIFICATION)	
		a) SHELL THICKNESS: BOTTOM MOST COURSE : 10 MM (MIN.), BALANCE COURSE: 8 MM (MIN.)	
		b) ROOF PLATE THICKNESS 8 MM(MIN.)	
		c) BOTTOM PLATE THICKNESS: 10MM(MIN.)	
11.0	DESIGN TEMPERATURE	60 °C	
12.0	LOCATION OF INSTALLATION	OUTDOOR	
13.0	NOZZLE CONNECTIONS REQD / END CONNECTION	AS PER ENCLOSED SKETCH / SOCKET WELDED FOR SIZE ≤ NB50 & FLANGED FOR SIZE > NB50	
14.0	PIPE / NOZZLE MATERIAL	STAINLESS STEEL TO SA312 TP 304	
15.0	VALVES MATERIAL	STAINLESS STEEL	
16.0	VALVES END CONNECTION	SOCKET WELDED FOR SIZE ≤ NB50 BUTT WELDED FOR SIZE > NB50	
18.0	APPLICABLE CODES / STATUTORY REGULATIONS	AS APPLICABLE IS-803 & API-650	
17.0	INSTRUMENTS / ACCESSORIES REQUIRED	(a) CONSERVATION VENT VALVE /NAOH BREATHER (b) OVERFLOW OF 150 NB & DRAIN PIPING OF 100 NB WITH DRAIN VALVE (c) SEAL POT WITH DRAIN VALVE ETC FOR OVERFLOW (d) LEVEL INDICATOR TO COVER ENTIRE RANGE(MECHANICAL FLOAT TYPE WITH DIAL TYPE INDICATOR) (e) 2 NOS TAPPINGS ON ROOF TOP FOR ULTRASONIC LEVEL TRANSMITTERS. GA DRAWING AND INSTALLATION DRAWING OF EARLIER PROJECT ATTACHED FOR REFERENCE. (f) FOR ACCESSORIES AND OTHER DETAILS REFER, CL. 16.00.00 SUB SECTION-A-14, SECTION VI, PART B OF NTPC SPECIFICATION.	
18.0	SURFACE PREPARATION		AS PER CUSTOMER'S APPROVED PAINTING SCHEDULE FOR TANK,
19.0	INSIDE PROTECTION	→	BREATHER AND SEAL POT
20.0	EXTERNAL PAINTING		REFER CL. 16.00.00 OF SUB SECTION-A-14, SECTION VI, PART B OF NTPC SPECIFICATION.
21.0	MANHOLE		TWO (2) NOS. ONE ON SHELL & OTHER ON ROOF
	NOTE : ALL OTHER GENERAL TECHNICAL REQUIREMENTS, ACCESSORIES & SPARES AS PER CUSTOMER SPECIFICATION.		

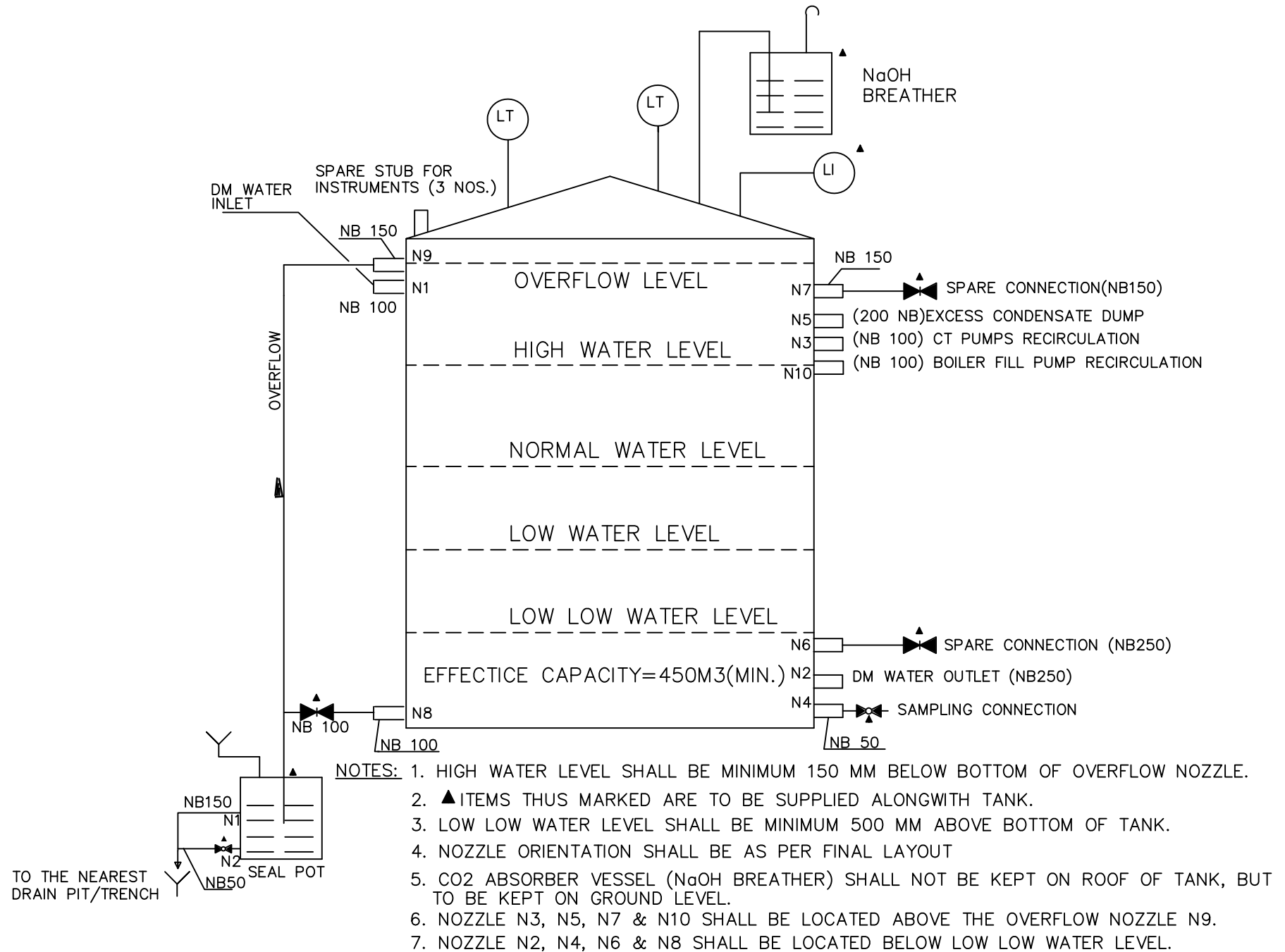
SKETCH SHOWING VARIOUS LEVELS IN DM WATER STORAGE TANK



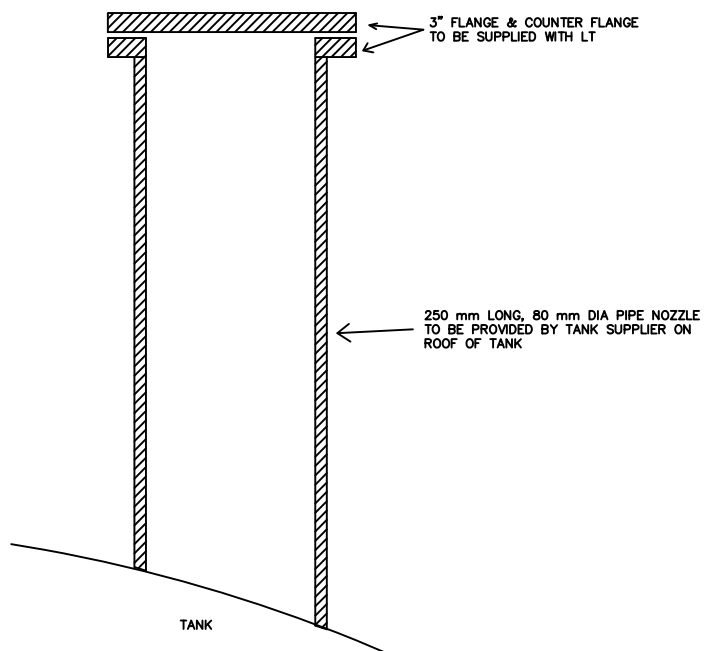
- NOTES:**
- 1.0 HIGH WATER LEVEL SHALL BE MINIMUM 150 MM BELOW BOTTOM OF OVERFLOW NOZZLE.
 - 2.0 NOZZLE ORIENTATION SHALL BE AS PER FINAL LAYOUT.
 - 3.0 LOW LOW WATER LEVEL SHALL BE MINIMUM 500 MM ABOVE BOTTOM OF TANK.
 - 4.0 ▲—ITEMS THUS MARKED ARE TO BE SUPPLIED ALONGWITH TANK.
 - 5.0 NOZZLE N6, N7, N8, N9, N11 & N15 SHALL BE LOCATED ABOVE OVERFLOW NOZZLE N4.
 - 6.0 NOZZLE N1, N2, N3, N10, N12 & N14 SHALL BE LOCATED BELOW LOW LOW WATER LEVEL.
 - 7.0 CO2 ABSORBER VESSEL (NaOH BREATHER) SHALL NOT BE KEPT ON ROOF OF TANK, BUT TO BE KEPT ON GROUND LEVEL.

BHEL PEM	DATA SHEET FOR CONDENSATE STORAGE TANK		DOC NO: PE-ID-434-100-Q013
			SHEET NO. 03 OF 04
PROJECT TITLE: PVUNL-3X800MW PATRATU STPP EXPANSION PHASE-1		REV. NO.: 01	
1.0	SERVICE IDENTIFICATION	CONDENSATE STORAGE TANK	
2.0	P&ID NO.	PE-DG-434-100-N109	
3.0	SYSTEM	CONDENSATE SYSTEM	
4.0	CAPACITY (EFFECTIVE)	450 M ³ (MIN.)	
5.0	NUMBER REQUIRED	THREE (03) NOS. FOR STATION	
6.0	STORAGE MEDIUM	DM WATER / CONDENSATE	
7.0	TYPE	VERTICAL, CYLINDRICAL	
8.0	SUGGESTED DIMENSION (DIA & HEIGHT) / PLATE THICKNESS	10X 8.5 M / MINIMUM (SHELL & ROOF) PLATE THICKNESS 8MM & BASE PLATE THICKNESS 10MM	
9.0	PRESSURE CLASS	DESIGN FOR FILLED WATER HEAD / ATOMSPHERIC	
10.0	PROTECTION INSIDE / OUTSIDE	AS PER CUSTOMER SPECN. (SEE SUB-SECTION-A-10, SECTION-VI, PART-B)	
11.0	MATERIAL OF CONSTRUCTION	MS-(IS-2062 Gr. B or EQUIVALENT) AS PER SPECIFIED CODE, 8MM THICKNESS (MIN.)	
12.0	DESIGN TEMPERATURE	60 ⁰ C	
13.0	LOCATION OF INSTALLATION	OUTDOOR	
14.0	NOZZLE CONNECTIONS REQD / END CONNECTION	AS PER ENCLOSED SKETCH / SOCKET WELDED FOR SIZE ≤ NB50 & FLANGED FOR SIZE > NB50	
15.0	PIPE / NOZZLE MATERIAL	STAINLESS STEEL SA 312 TP 304	
16.0	VALVES MATERIAL	STAINLESS STEEL	
17.0	VALVES END CONNECTION	SOCKET WELDED FOR SIZE ≤ NB50 BUTT WELDED FOR SIZE > NB50	
18.0	APPLICABLE CODES / STATUTORY REGULATIONS	AS APPLICABLE IS-803 & API-650	
19.0	INSTRUMENTS / ACCESSORIES/ SPECIAL FITTINGS REQUIRED (REFER ENCLOSED SKETCH)	(a) CONSERVATION VENT VALVE / BREATHER (b) OVERFLOW & DRAIN PIPING WITH DRAIN VALVE (c) SAMPLING CONNECTION WITH ISOLATING VALVE (d) SEAL POT WITH DRAIN VALVE ETC FOR OVERFLOW (e) 2 NOS TAPPINGS ON ROOF TOP FOR ULTRASONIC LEVEL TRANSMITTERS. GA DRAWING AND INSTALLATION DRAWING OF EARLIER PROJECT ATTACHED FOR REFERENCE. (f) LEVEL INDICATOR TO COVER ENTIRE RANGE(MECHANICAL FLOAT TYPE WITH DIAL TYPE INDICATOR) WITH FITTINGS AS PER NTPC SPECIFICATION (CL. 2.17.03 OF SUB-SECTION-A-10, SECTION-VI, PART-B) (g) SPECIAL FITTINGS SHALL BE PROVIDED AS PER NTPC SPEC.(CL. 2.17.03{1.10} OF SUB-SECTION-A-10, SECTION-VI, PART-B (h) ALSO REFER THE CL. 2.17.03 OF SUB-SECTION-A-10, SECTION-VI, PART-B OF NTPC SPECIFICATION.	
20.0	SURFACE PREPARATION	AS PER CUSTOMER'S APPROVED PAINTING SCHEDULE FOR TANK,	
21.0	INSIDE PROTECTION	BREATHER AND SEAL POT	
22.0	EXTERNAL PAINTING	REFER SUB SECTION-A-10 OF SECTION VI, PART B OF NTPC SPECIFICATION	
23.0	MANHOLE	TWO (2) NOS. (MIN. 500 mm) ONE ON SHELL & THE OTHER ON ROOF	
NOTE : FOR GENERAL TECHNICAL REQUIREMENTS, ACCESSORIES & SPARES, REFER CUSTOMER SPEC.			

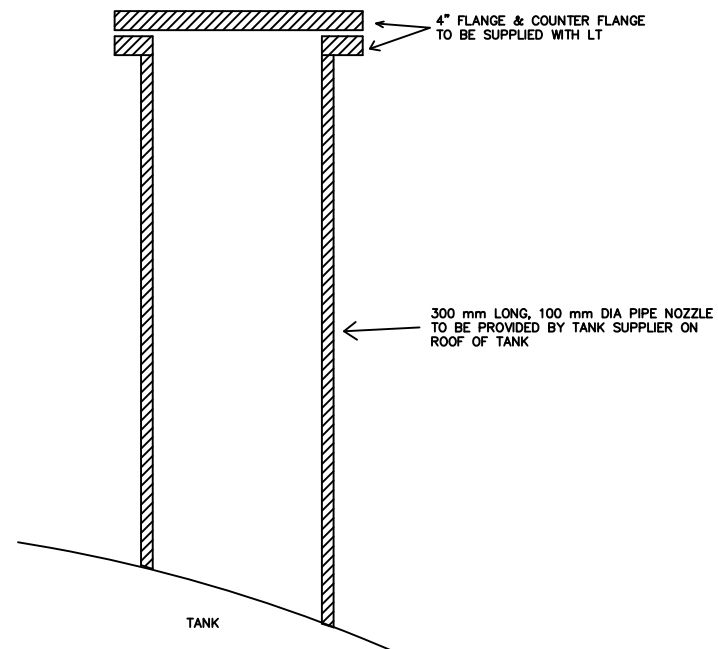
SKETCH FOR CONDENSATE STORAGE TANK

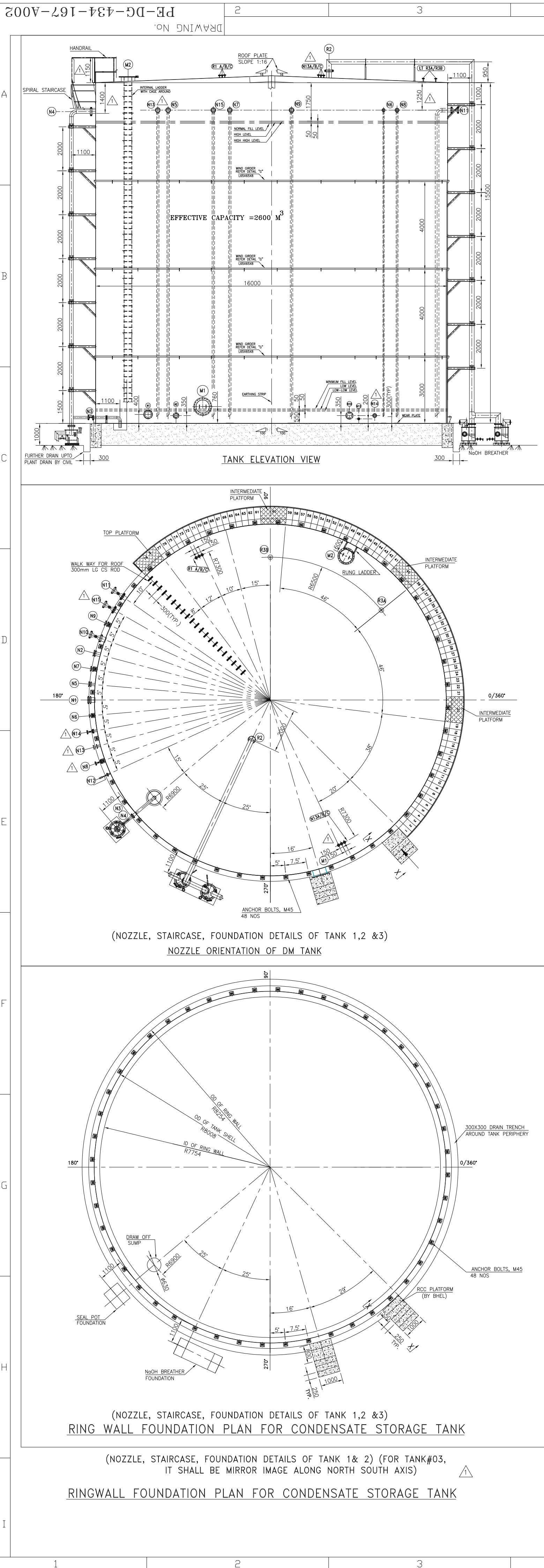


TAPPING POINT DETAILS FOR MOUNTING OF
ULTRASONIC TYPE LT ON CST



TAPPING POINT DETAILS FOR MOUNTING OF
ULTRASONIC TYPE LT ON DM STRG TANK





ANNEXURE-C

BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.
7. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within

15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.

8. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
9. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
10. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
11. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
12. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
13. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.

14. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
15. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
16. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.
17. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
18. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
19. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
20. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall

however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.

21. Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.

22. The proceedings of Conciliation under this Scheme may be terminated as follows:

- a. On the date of signing of the Settlement agreement by the Parties; or,
- b. By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
- c. By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
- d. By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
- e. On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.

23. The Conciliator(s) shall be entitled to following fees and facilities:

Sl No	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.
2	Towards drafting of settlement agreement	In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator)

Sl No	Particulars	Amount
		In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator) In cases involving claim and/or counter-claim of more than Rs 10 crores. Rs 1,00,000/- (per Conciliator) Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.
3	Secretarial expenses	Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC. Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC
4	Travel and transportation and stay at outstation i) Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.

Sl No	Particulars	Amount
		Ordinarily, the IEC Member(s) would be entitled to travel by air Economy Class.
5	Venue for meeting	Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region / Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.

24. The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
25. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
26. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
27. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.

28. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
29. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/regulatory body, as the case may be.
30. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
- a. Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
 - b. admissions made by the other party in the course of the Conciliator proceedings;
 - c. proposals made by the Conciliator;
 - d. The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
31. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
32. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
33. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue

notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.

34. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.

**FORMAT FOR SEEKING CONSENT FOR REFERRING THE DISPUTES TO
CONCILIATION THROUGH IEC**

To,

M/s. (Stakeholder's name)

Sub: Resolution of the Disputes through conciliation by Independent Expert Committee (IEC).

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Sir,

With reference to above referred Contract/MoU/Agreement/LOI/LOA, you have raised certain Disputes/claims. Vide your letter dated_____ you have requested BHEL to refer the Disputes/claims to IEC for Conciliation.

We are enclosing herewith Format (3) for giving consent and the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. You are requested to give your unconditional consent to the said terms and conditions of the Scheme by returning the same duly sealed and signed on each page. On receipt of your consent, matter will be put to the Competent Authority for consideration and decision.

Please note that BHEL has also certain claims against you (if applicable). BHEL reserves its right to agree or not to agree conciliation of the said disputes through BHEL and this letter is being issued without prejudice to BHEL's rights and contentions available under the contract and law.

Yours faithfully,

Representative of BHEL

**FORMAT FOR GIVING CONSENT BY
CONTRACTOR/VENDOR/CUSTOMER/COLLABORATOR/CONSORTIUM PARTNERS FOR REFERRING THE DISPUTES TO CONCILIATION
THROUGH IEC**

To,

BHEL

.....

Sub: Resolution of Disputes through Conciliation by Independent Expert Committee (IEC).

Ref: Contract/MoU/Agreement/LOI/LOA No & date ____

With reference to above referred contract, our following bills/invoices/claims submitted to BHEL are still unpaid giving rise to Disputes:

SL. no.	Claim Description	Bill submitted to BHEL (no. and date)	Amount of the bill/claim	Amount received from BHEL	Outstanding Amount

Accordingly we request you to kindly refer the Disputes in respect of above claims to IEC for Conciliation.

We hereby agree and give our unconditional consent to the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. We have signed the same on each page and enclosed it for your consideration.

Yours faithfully,

(Signature with stamp)

**Authorized Representative of Contractor
Name, with designation
Date**

**STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO
THE IEC BY BOTH THE PARTIES**

1. Chronology of the Disputes
2. Brief of the Contract/MoU/Agreement/LOI/LOA
3. Brief history of the Disputes:
4. Issues:
5. Details of Claim(s)/Counter Claim(s):

SI. No.	Description of claim(s)/Counter Claim	Amount (in INR)Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

Note– *The Statement of Claims/Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/Counter Claims. The statement of Claims/Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.*

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions:

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to

demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.
- 6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 - Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal

(Office Seal)

Place-----

Date-----

Witness:_____

(Name & Address) _____

For & On behalf of the Bidder/

Contractor

(Office Seal)

Witness:_____

(Name & Address) _____
