



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 11

Ref: PSER:SCT:RKL-M1847:TCN-11

Date: 21-09-2017

Sub	Tender change notice (TCN) 11	
Job	Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, R&M Etc. Of Water Treatment Packages (PTP, ETP, STP, DM Plant (Renovation & Modernization) For 1x250 MW Units At PP-II Expansion, NSPCL, Rourkela, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-M1847:17
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-M1847:5814, Dated 20-07-2017.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1847:TCN-01, Dated 26-07-2017
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1847:TCN-02, Dated 08-08-2017
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1847:TCN-03, Dated 11-08-2017
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1847:TCN-04, Dated 23-08-2017
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:RKL-M1847:TCN-05, Dated 24-08-2017
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:RKL-M1847:TCN-06, Dated 01-09-2017
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:RKL-M1847:TCN-07, Dated 12-09-2017
	10.0	BHEL's TCN-08, vide reference no PSER:SCT:RKL-M1847:TCN-08, Dated 15-09-2017
	11.0	BHEL's TCN-09, vide reference no PSER:SCT:RKL-M1847:TCN-08, Dated 16-09-2017
	12.0	BHEL's TCN-10, vide reference no PSER:SCT:RKL-M1847:TCN-10, Dated 18-09-2017
	13.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Extension of due date of offer submission from 21-09-2017 to 04-10-2017 (15:00 Hrs).
- 2.0 P&ID for PT plant as attached.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

DY.MGR (SCT)

Encl : As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
 Power Sector - Eastern Region,
 Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
 Kolkata – 700 091

Sub	No Deviation Certificate.	
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	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1847:TCN-01, Dated 26-07-2017
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1847:TCN-02, Dated 08-08-2017
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1847:TCN-03, Dated 11-08-2017
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1847:TCN-04, Dated 23-08-2017
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:RKL-M1847:TCN-05, Dated 24-08-2017
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:RKL-M1847:TCN-06, Dated 01-09-2017
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:RKL-M1847:TCN-07, Dated 12-09-2017
	10.0	BHEL's TCN-08, vide reference no PSER:SCT:RKL-M1847:TCN-08, Dated 15-09-2017
	11.0	BHEL's TCN-09, vide reference no PSER:SCT:RKL-M1847:TCN-09, Dated 16-09-2017
	12.0	BHEL's TCN-10, vide reference no PSER:SCT:RKL-M1847:TCN-10, Dated 18-09-2017
	13.0	BHEL's TCN-11, vide reference no PSER:SCT:RKL-M1847:TCN-11, Dated 21-09-2017
	14.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

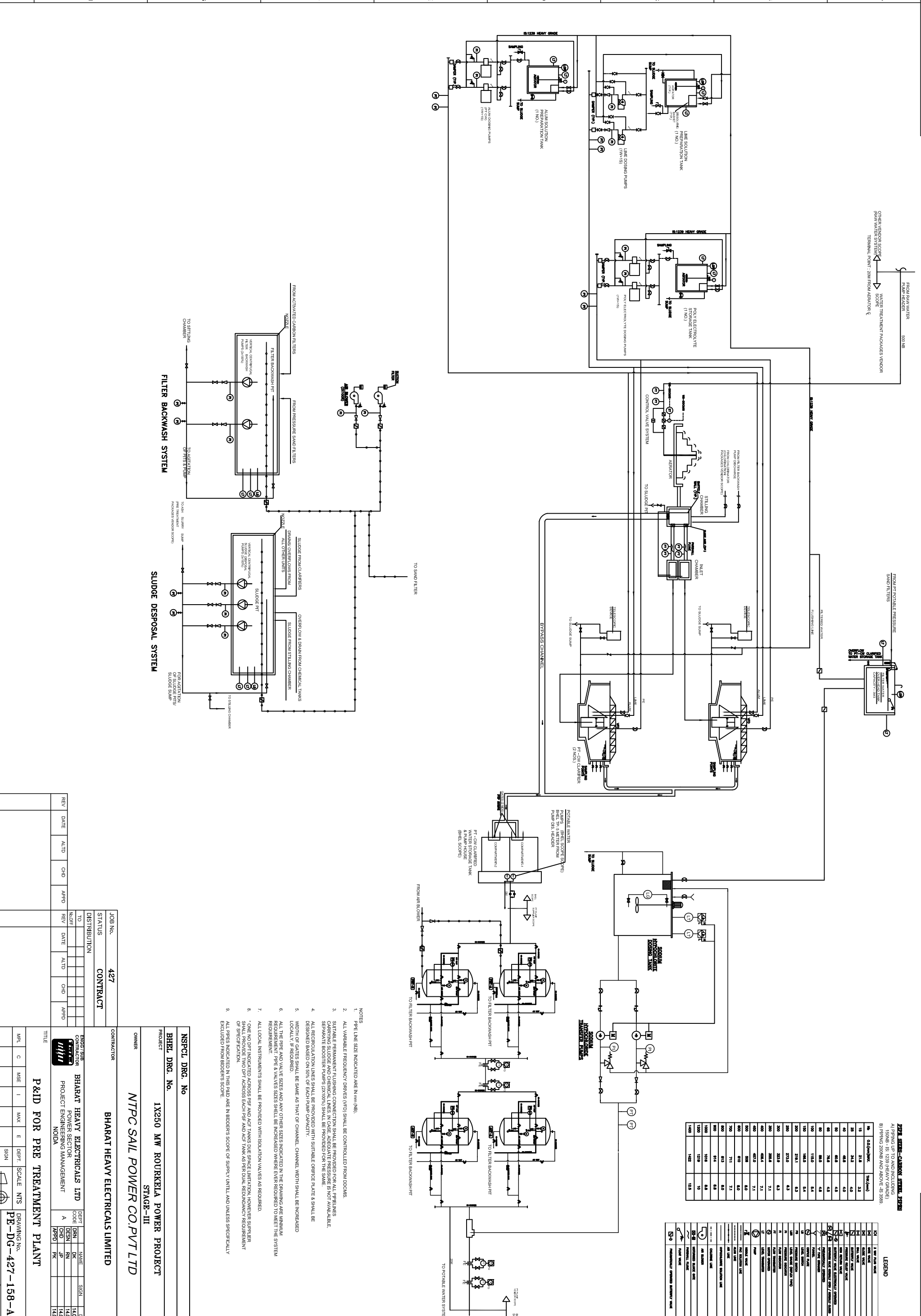
Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

COPY RIGHT AND CONFIDENTIAL
 The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED
 It must not be used directly or indirectly in any way detrimental to the interest of the company.

COMPUTER FILE NAME :



PIPE SIZES - CARBON SYSTEM, PIPES
 A) PIPING UP TO AND INCLUDING SAND FILTERS
 B) PIPING ZONE AND ABOVE IS 500

No.	Old (mm)	New (mm)
15	21.8	3.2
20	34.3	4.0
40	48.8	4.0
50	60.8	4.0
60	74.8	4.0
80	88.8	4.0
100	110.8	5.4
150	148.8	6.3
200	218.1	6.3
300	272.0	6.3
400	302.8	6.3
500	302.8	6.3
600	406.4	7.1
800	472.0	7.1
1000	610	8.0
1200	711	7.1
1400	813	8.0
1600	914	8.0
1800	1016	8.0
2000	1219	10
2200	1422	12.5

LEGEND

SYMBOL	DESCRIPTION
○	3" NW 45° VALVE
○	4" NW 45° VALVE
○	6" NW 45° VALVE
○	8" NW 45° VALVE
○	10" NW 45° VALVE
○	12" NW 45° VALVE
○	15" NW 45° VALVE
○	20" NW 45° VALVE
○	24" NW 45° VALVE
○	30" NW 45° VALVE
○	36" NW 45° VALVE
○	42" NW 45° VALVE
○	48" NW 45° VALVE
○	54" NW 45° VALVE
○	60" NW 45° VALVE
○	66" NW 45° VALVE
○	72" NW 45° VALVE
○	78" NW 45° VALVE
○	84" NW 45° VALVE
○	90" NW 45° VALVE
○	96" NW 45° VALVE
○	102" NW 45° VALVE
○	108" NW 45° VALVE
○	114" NW 45° VALVE
○	120" NW 45° VALVE
○	126" NW 45° VALVE
○	132" NW 45° VALVE
○	138" NW 45° VALVE
○	144" NW 45° VALVE
○	150" NW 45° VALVE
○	156" NW 45° VALVE
○	162" NW 45° VALVE
○	168" NW 45° VALVE
○	174" NW 45° VALVE
○	180" NW 45° VALVE
○	186" NW 45° VALVE
○	192" NW 45° VALVE
○	198" NW 45° VALVE
○	204" NW 45° VALVE
○	210" NW 45° VALVE
○	216" NW 45° VALVE
○	222" NW 45° VALVE
○	228" NW 45° VALVE
○	234" NW 45° VALVE
○	240" NW 45° VALVE
○	246" NW 45° VALVE
○	252" NW 45° VALVE
○	258" NW 45° VALVE
○	264" NW 45° VALVE
○	270" NW 45° VALVE
○	276" NW 45° VALVE
○	282" NW 45° VALVE
○	288" NW 45° VALVE
○	294" NW 45° VALVE
○	300" NW 45° VALVE
○	306" NW 45° VALVE
○	312" NW 45° VALVE
○	318" NW 45° VALVE
○	324" NW 45° VALVE
○	330" NW 45° VALVE
○	336" NW 45° VALVE
○	342" NW 45° VALVE
○	348" NW 45° VALVE
○	354" NW 45° VALVE
○	360" NW 45° VALVE
○	366" NW 45° VALVE
○	372" NW 45° VALVE
○	378" NW 45° VALVE
○	384" NW 45° VALVE
○	390" NW 45° VALVE
○	396" NW 45° VALVE
○	402" NW 45° VALVE
○	408" NW 45° VALVE
○	414" NW 45° VALVE
○	420" NW 45° VALVE
○	426" NW 45° VALVE
○	432" NW 45° VALVE
○	438" NW 45° VALVE
○	444" NW 45° VALVE
○	450" NW 45° VALVE
○	456" NW 45° VALVE
○	462" NW 45° VALVE
○	468" NW 45° VALVE
○	474" NW 45° VALVE
○	480" NW 45° VALVE
○	486" NW 45° VALVE
○	492" NW 45° VALVE
○	498" NW 45° VALVE
○	504" NW 45° VALVE
○	510" NW 45° VALVE
○	516" NW 45° VALVE
○	522" NW 45° VALVE
○	528" NW 45° VALVE
○	534" NW 45° VALVE
○	540" NW 45° VALVE
○	546" NW 45° VALVE
○	552" NW 45° VALVE
○	558" NW 45° VALVE
○	564" NW 45° VALVE
○	570" NW 45° VALVE
○	576" NW 45° VALVE
○	582" NW 45° VALVE
○	588" NW 45° VALVE
○	594" NW 45° VALVE
○	600" NW 45° VALVE
○	606" NW 45° VALVE
○	612" NW 45° VALVE
○	618" NW 45° VALVE
○	624" NW 45° VALVE
○	630" NW 45° VALVE
○	636" NW 45° VALVE
○	642" NW 45° VALVE
○	648" NW 45° VALVE
○	654" NW 45° VALVE
○	660" NW 45° VALVE
○	666" NW 45° VALVE
○	672" NW 45° VALVE
○	678" NW 45° VALVE
○	684" NW 45° VALVE
○	690" NW 45° VALVE
○	696" NW 45° VALVE
○	702" NW 45° VALVE
○	708" NW 45° VALVE
○	714" NW 45° VALVE
○	720" NW 45° VALVE
○	726" NW 45° VALVE
○	732" NW 45° VALVE
○	738" NW 45° VALVE
○	744" NW 45° VALVE
○	750" NW 45° VALVE
○	756" NW 45° VALVE
○	762" NW 45° VALVE
○	768" NW 45° VALVE
○	774" NW 45° VALVE
○	780" NW 45° VALVE
○	786" NW 45° VALVE
○	792" NW 45° VALVE
○	798" NW 45° VALVE
○	804" NW 45° VALVE
○	810" NW 45° VALVE
○	816" NW 45° VALVE
○	822" NW 45° VALVE
○	828" NW 45° VALVE
○	834" NW 45° VALVE
○	840" NW 45° VALVE
○	846" NW 45° VALVE
○	852" NW 45° VALVE
○	858" NW 45° VALVE
○	864" NW 45° VALVE
○	870" NW 45° VALVE
○	876" NW 45° VALVE
○	882" NW 45° VALVE
○	888" NW 45° VALVE
○	894" NW 45° VALVE
○	900" NW 45° VALVE
○	906" NW 45° VALVE
○	912" NW 45° VALVE
○	918" NW 45° VALVE
○	924" NW 45° VALVE
○	930" NW 45° VALVE
○	936" NW 45° VALVE
○	942" NW 45° VALVE
○	948" NW 45° VALVE
○	954" NW 45° VALVE
○	960" NW 45° VALVE
○	966" NW 45° VALVE
○	972" NW 45° VALVE
○	978" NW 45° VALVE
○	984" NW 45° VALVE
○	990" NW 45° VALVE
○	996" NW 45° VALVE
○	1002" NW 45° VALVE
○	1008" NW 45° VALVE
○	1014" NW 45° VALVE
○	1020" NW 45° VALVE
○	1026" NW 45° VALVE
○	1032" NW 45° VALVE
○	1038" NW 45° VALVE
○	1044" NW 45° VALVE
○	1050" NW 45° VALVE
○	1056" NW 45° VALVE
○	1062" NW 45° VALVE
○	1068" NW 45° VALVE
○	1074" NW 45° VALVE
○	1080" NW 45° VALVE
○	1086" NW 45° VALVE
○	1092" NW 45° VALVE
○	1098" NW 45° VALVE
○	1104" NW 45° VALVE
○	1110" NW 45° VALVE
○	1116" NW 45° VALVE
○	1122" NW 45° VALVE
○	1128" NW 45° VALVE
○	1134" NW 45° VALVE
○	1140" NW 45° VALVE
○	1146" NW 45° VALVE
○	1152" NW 45° VALVE
○	1158" NW 45° VALVE
○	1164" NW 45° VALVE
○	1170" NW 45° VALVE
○	1176" NW 45° VALVE
○	1182" NW 45° VALVE
○	1188" NW 45° VALVE
○	1194" NW 45° VALVE
○	1200" NW 45° VALVE

- NOTES**
1. PIPE LINE SIZE INDICATED ARE IN mm (NB).
 2. ALL VARIABLE FREQUENCY DRIVES (VFD) SHALL BE CONTROLLED FROM ROOMS.
 3. SUITABLE REMOVAL USING CONNECTION SHALL BE PROVIDED FOR ALL PIPES AND TANKS. REMOVAL SHALL BE PROVIDED FOR THE SAME.
 4. ALL RECIRCULATION LINES SHALL BE PROVIDED WITH SUITABLE OFFICE PLATE & SHALL BE DESIGNED BASED ON 5% OF EACH PUMP CAPACITY.
 5. WIDTH OF GATES SHALL BE SAME AS THAT OF CHANNEL. CHANNEL WIDTH SHALL BE INCREASED LOCALLY IF REQUIRED.
 6. ALL THE PIPE AND VALVE SIZES AND ANY OTHER SIZES INDICATED IN THE DRAWING ARE MINIMUM REQUIREMENT. PIPE & VALVE SIZES SHALL BE INCREASED WHERE EVER REQUIRED TO MEET THE SYSTEM REQUIREMENT.
 7. ALL LOCAL INSTRUMENTS SHALL BE PROVIDED WITH ISOLATION VALVES AS REQUIRED.
 8. ONE NO OPTICATED ACROSS PIPE AND AGT TANKS DUE SPACE LIMITATION HOWEVER SUPPLIER OF SPECIFICATION.
 9. ALL PIPES INDICATED IN THIS AND ARE IN BIDDER'S SCOPE OF SUPPLY UNTILL AND UNLESS SPECIFICALLY EXCLUDED FROM BIDDER'S SCOPE.

JOB No. 427		CONTRACT	
STATUS		CONTRACT	
DISTRIBUTION			
REV	DATE	ALTD	CHD
APPD			
REV	DATE	ALTD	CHD
APPD			
TITLE			
P&ID FOR PRE TREATMENT PLANT			
DEPT	NAME	DATE	
CONTRACTOR	BHARAT HEAVY ELECTRICALS LTD	14.02.2017	
TO	DEPT	DATE	
NO. OF	CHD	JP	
REV	DATE	PK	
APPD			
OWNER			
NSPCL DRG. No.			
BHEL DRG. No.			
1X250 MW ROUKKELA POWER PROJECT			
STAGE-II			
NTPC SAIL POWER CO.PVT LTD			
CONTRACTOR			
BHARAT HEAVY ELECTRICALS LIMITED			

REV	DATE	ALTD	CHD	APPD

1	2	3	4	5	6	7	8	9	10