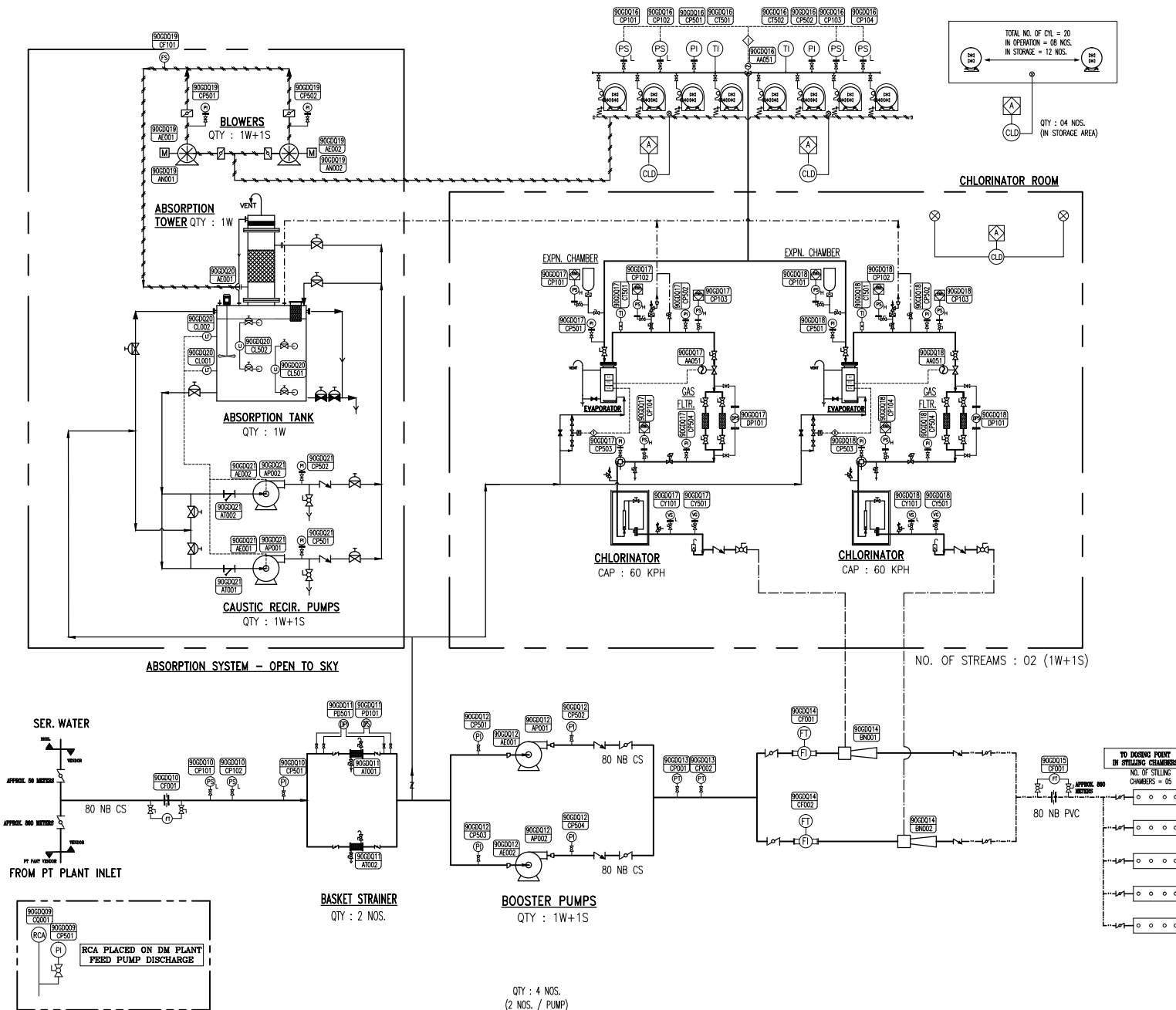




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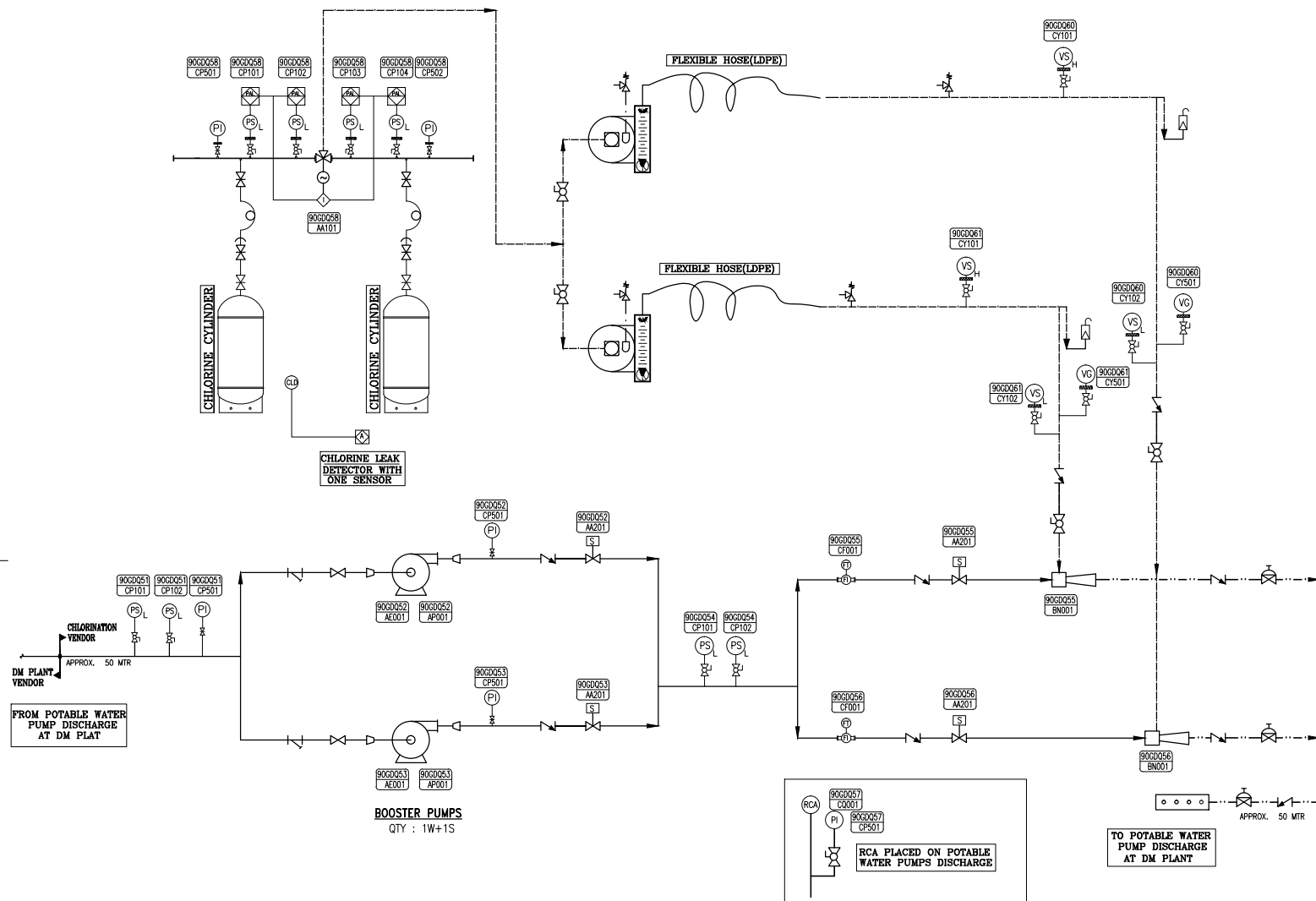
- PRESSURE INDICATOR WITH DIAPHRAGM SEAL
- PRESSURE SWITCH WITH DIAPHRAGM SEAL
- TEMPERATURE INDICATOR
- DIFFERENTIAL PRESSURE SWITCH
- DIFFERENTIAL PRESSURE INDICATOR
- PRESSURE INDICATOR
- DIFFERENTIAL PRESSURE REGULATOR
- VACUUM SWITCH WITH DIAPHRAGM SEAL
- VACUUM GAUGE WITH DIAPHRAGM SEAL
- FLOW TRANSMITTER
- FLOW SWITCH
- LEVEL INDICATOR
- LEVEL TRANSMITTER
- CHLORINE LEAK DETECTOR WITH SENSOR AND ALARM
- RESIDUAL CHLORINE ANALYSER
- TON VALVE WITH YOKE
- MANIFOLD (NEEDLE) VALVE
- FLOW CONTROL VALVE
- BALL VALVE
- ISOLATION (NEEDLE) VALVE
- BUTTER FLY VALVE
- ISOLATION (GLOBE/GATE) VALVE
- GATE VALVE
- DIAPHRAGM VALVE
- DAMPER
- CHECK VALVE
- PRESSURE RELIEF VALVE
- VACUUM RELIEF VALVE
- (EMERGENCY) DRAIN RELIEF VALVE
- AUTO SHUT OFF VALVE
- AUTO CHANGE OVER VALVE
- SOLENOID VALVE
- MOTORISED BUTTERFLY VALVE
- STRAINER - (Y-TYPE)
- PRESSURE REDUCING VALVE
- AUTOMATIC VACUUM REGULATOR
- GAS FILTER
- RUPTURE DISC
- INJECTOR
- STRAINER (BASKET)
- HORIZONTAL CENTRIFUGAL PUMP
- BLOWER
- CHLORINE TONNER
- TONNER ROLLER SUPPORT
- DIFFUSER
- WATER LINE
- CHLORINE LINE
- CHLORINE SOLUTION
- INTER LOCK LINE
- DUCTING LINE

FOR TENDER PURPOSE ONLY

- NOTES : 1) THIS P&ID IS FOR TENDER PURPOSE ONLY, FINAL P&ID SHALL BE SUBMITTED DURING DETAILED ENGINEERING FOR APPROVAL BY M/S TSGENCO
- 2) THE PIPE SIZES SHOWN ARE TENTATIVE ONLY, BIDDER TO SUITABLY CALCULATE THE PIPE SIZES.
- 3) ADEQUATE NO. OF EXHAUST FANS TO BE CONSIDERED.

REV	DATE	ALTD	CHD	APPD

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF THE COMPANY AND IS NOT TO BE LOANED, REPRODUCED, COPIED, DIRECTLY OR INDIRECTLY IN ANY WAY, EXCEPT AS TO THE INTEREST OF THE COMPANY.	PROJECT		YADADRI TPS -5x800 MW				
			OWNER	TELANGANA STATE POWER GEN. CORPN. LTD.			
			EPC CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI			
			UNIT : BOILER AUXILIARIES PLANT ; RANIPET				
			PACKAGE : RW GAS CHLORINATION				
	TITLE						
	P & ID FOR RW GAS CHLORINATION SYSTEM						
				NAME	SIGN.	DATE	
				DRAWN	ABHINAV	SGT 23.12.17	
			CHECKED	SRIVATSAN	SGT 23.12.17		
			APPROVED	SRIVATSAN	SGT 23.12.17		
ALL DIMENSIONS ARE IN MILLIMETRES							
PROJECTION 			SHEET DRAWING NO.				
SCALE N.T.S			3-WT-040-00843				
			REV 00				



LEGEND

	PRESSURE INDICATOR WITH DIAPHRAGM SEAL		GAS FILTER
	PRESSURE SWITCH WITH DIAPHRAGM SEAL		RUPTURE DISC
	TEMPERATURE INDICATOR		INJECTOR
	DIFFERENTIAL PRESSURE SWITCH		STRAINER (BASKET)
	DIFFERENTIAL PRESSURE INDICATOR		HORIZONTAL CENTRIFUGAL PUMP
	PRESSURE INDICATOR		BLOWER
	DIFFERENTIAL PRESSURE REGULATOR		CHLORINE TONNER
	VACUUM SWITCH WITH DIAPHRAGM SEAL		TONNER ROLLER SUPPORT
	VACUUM GAUGE WITH DIAPHRAGM SEAL		DIFFUSER
	FLOW TRANSMITTER		WATER LINE
	FLOW SWITCH		CHLORINE LINE
	LEVEL INDICATOR		INTER LOCK LINE
	LEVEL TRANSMITTER		DUCTING LINE
	CHLORINE LEAK DETECTOR WITH SENSOR AND ALARM		
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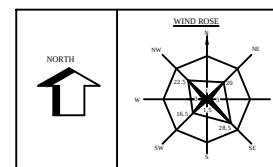
FOR TENDER PURPOSE ONLY

NOTES : 1) THIS P&ID IS FOR TENDER PURPOSE ONLY, FINAL P&ID SHALL BE SUBMITTED DURING DETAILED ENGINEERING FOR APPROVAL BY M/S TSGENCO
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REV. DATE. ALTD. CHD. APPD:

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PROJECT		YADADRI TPS -5x800 MW															
	OWNER	TELANGANA STATE POWER GEN. CORPN. LTD.															
	EPC CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI UNIT: BOILER AUXILIARIES PLANT : RANIPET PACKAGE : PW GAS CHLORINATION															
TITLE		P & ID FOR PW GAS CHLORINATION SYSTEM															
		<table><tr><td>DRAWN</td><td>ABHINAV</td><td>Sd/-</td><td>23.12.17</td></tr><tr><td>CHECKED</td><td>SRIVATSAN</td><td>Sd/-</td><td>23.12.17</td></tr><tr><td>APPROVED</td><td>SUBRAMANIAM</td><td>Sd/-</td><td>23.12.17</td></tr></table>		DRAWN	ABHINAV	Sd/-	23.12.17	CHECKED	SRIVATSAN	Sd/-	23.12.17	APPROVED	SUBRAMANIAM	Sd/-	23.12.17	REV	
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ALL DIMENSIONS ARE IN MILLIMETRES		SHEET DRAWING NO.															
PROJECTION	SCALE			3-WT-040-00844													
	N.T.S.			00													

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Journal Staff No. 6 140254

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CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5x800 MW YADADRI TPS, NALGONDA
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OWNER'S CONSULTANT:	
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BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

BHAARAT HEAVY ELECTRICALS LIMITED The information on this document is the property of BHAARAT HEAVY ELECTRICALS LIMITED It must not be used directly or indirectly in any way detrimental to the interest of the company.	COPY RIGHT AND CONFIDENTIAL			
	DEPT	NAME	SIGN	DATE
	CODE	AMS		15.12.13
	M	DRN	MR	15.12.13
		DESIN	BAK	15.12.13
		CHD	BAK	15.12.13
		APPO	JU	15.12.13

TITLE	PLOT PLAN
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						DEPT.	SCALE 1:15000	DRAWING NO.
						SIGN		PE-DG-417-100-M001



BHEL : BAP : RANIPET Water Business

Qualification requirement for Gas Chlorination Plant

1. Supplier should have capabilities for design / manufacture and having in-house / out-sourced facility for testing of Gas Chlorination Plant.

Gas Chlorination Plant shall be of minimum capacity of 75 kg/hr comprising of chlorinator, evaporator, ejector and leak absorption system.

2. The supplier has to submit either of following supporting documents meeting above mentioned prequalifying requirement.
 - a. Copy of minimum one (1) performance certificate in English from end user along with copy of related Purchase order (PO) or letter of intent (LOI) or letter of award (LOA) or work order (WO) specifying that the system / package is running successfully for one (1) year from date of commissioning meeting the minimum pre-qualifying requirement.
OR
 - b. Minimum two PO / LOI / LOA / WO placed with a minimum gap of one (1) year from same purchaser meeting the minimum prequalification requirement.
OR
 - c. Minimum one PO / LOI / LOA / WO after commissioning of first order from same purchaser meeting the minimum prequalification requirement.
OR
 - d. In case vendor has executed contract (s) for BHEL-Ranipet, internal assessment by BHEL, Ranipet shall be followed for evaluation for satisfactory performance. For this vendor to submit the request along with relevant documents.
OR
 - e. Minimum three Customer's / third party's inspection reports / test certificates / commissioning certificates meeting the minimum prequalification requirement.
3. Minimum two (2) nos Purchase orders, shall be submitted which should not be more than twenty (20) years old as on date of bid submission, for establishing continuity in business.

Supplier to comply general points of PQR in case supplier is not OEM, the offer shall be evaluated as per point no 1 of general PQR.

[Handwritten Signature]



BHEL : BAP : RANIPET Water Business

General Points of PQR

1. Offers of the JV companies/ Joint Bidders/ bidders having collaboration/ licensing agreement/ MOU / Indian subsidiaries shall be evaluated as follows:

- If bidder happens to be an Indian subsidiaries of foreign OEM, then the credentials of the foreign OEM can also be considered for meeting PQR.
- If bidder happens to be the Joint Venture Company, then the credentials of any of JV partners can be also considered for meeting PQR.
- If bidder happens to bid jointly with their partner, then credentials of both the partners will be considered for meeting PQR as per distribution of the work. In all such cases, lead bidder as specified in bid documents shall be responsible for overall execution of the contract and all guarantee/ warranty.
- If bidder happens to be the having valid collaboration agreement/ MOU/ licensing agreement with some other company, then the credentials of collaborator/ MOU partner/ licensing company can also be considered for meeting PQR.

Note: If bidder(s) qualifies on the basis of credentials of his principal/ JV partner/ Collaborator/ joint bidder etc., then the principal/ JV partner/ Collaborator/ MOU partner/ joint bidder shall be responsible for overall design vetting and warranty/ guarantee of the package. The scope matrix clearly defining their respective roles including design vetting, manufacturing of critical component, E&C etc. etc. and warranty/ guarantee shall be submitted along with the offer.

2. Bidder to note that the arrangement of bidding (joint bid partners/ collaborator/ MOU partner/ licensing company etc.) once offered to BHEL as a part of bidding documents cannot be changed till the execution of the project.

3. Consideration of offer shall be subject to customer's approval of bidders, if applicable.

4. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.

5. Any other project specific requirement, bidder shall submit relevant supporting documents.

6. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.

7. After satisfactory fulfillment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

A. Kumar
08/09/17
Prepared

M. K. Hanu
080917
Checked

M. K. Hanu
080917
Approved