

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
RGTPP, HISAR (2X600 MW)

Section VIII
(Amendments & Clarifications, Part-I)

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 AMENDMENT NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-01**

S.N	Reference			For	Read as
	Section	Clause	Page		
1	SECTION-II,ITB	36.2	33 of 34		Delete the clause
2	SECTION-II,ITB	36.3	34 of 34	If the firm fails or neglect to observe or perform any of its obligation under the contract, it will be lawful for HPGCL to forfeit either in whole or part at its absolute discretion, the security deposit furnished by the firm	If the firm fails or neglect to observe or perform any of its obligation under the contract, it will be lawful for HPGCL to forfeit either in whole or part at its absolute discretion, the security deposit/ performance security furnished by the firm
3	Section-IV-GCC	7.3	8 of 69	In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts. Prices of recommended spares covered under price Schedule No. 6 shall be kept	In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts. Prices of recommended spares covered under price Schedule No. 6 shall be kept valid for a period of Five (5) years after placement of Notification of Award for Main Equipment and Mandatory Spares

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR RGTPP, HISAR (2X600 MW)	AMENDMENT No. 01 to BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250	Page 1 of 3
---	--	-------------

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 AMENDMENT NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-01**

S.N	Reference			For	Read as
				valid for a period of six (6) months after placement of Notification of Award for Main Equipment and Mandatory Spares.	
4	Section-IV-GCC	50	68 of 69		Delete the clause
5	Section-IV-GCC	51	68 of 69		Delete the clause
6	Section-III- BDS	Item no. 9	13 of 18	Time to complete the facilities from the date of Notification of Award "Completion of all Facilities" shall be attained within 10.5 months from the date of Notification of Award.	Time to complete the facilities from the date of Notification of Award "Completion of all Facilities" shall be attained within 27 months from the date of Notification of Award.
7	Section-IV-GCC	2.4	3 of 69	Subsequent to signing of the Contract, the Contractor at his own cost shall provide the Employer with at least twenty (20) copies of electronic version of the signed Contract Agreement on CD-ROM within thirty (30) days of its signing.	Subsequent to signing of the Contract, the Contractor at his own cost shall provide the Employer with at least twenty (20) copies of electronic version of the signed Contract Agreement on CD-ROM/ pen drive within thirty (30) days of its signing
8	Section-IV-GCC	20.3.5	28 of 69		Please replace the clause with the following: If any dispute or difference occurs between the Employer and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the parties within a reasonable period, then such dispute or difference shall be settled as per cl. 6 of GCC.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR RGTPP, HISAR (2X600 MW)	AMENDMENT No. 01 to BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250	Page 2 of 3
---	--	-------------

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 AMENDMENT NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-01**

S.N	Reference			For	Read as
9	Section-IV-GCC	39.2.5	28 of 69	<p>If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order."</p> <p>Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal.</p> <p>If the parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Expert Settlement Council (ESC) in accordance with the provisions of GCC Sub-Clause 6.2.</p>	<p>If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order."</p> <p>Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal.</p> <p>If the parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be settled in accordance with the provisions of GCC Sub-Clause 6.</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR RGTPP, HISAR (2X600 MW)	AMENDMENT No. 01 to BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250	Page 3 of 3
---	--	-------------

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	Section	Clause	Page			
1.	Section-II, ITB	10.7	17 to 34	Price Basis Prices quoted by the Bidder shall be on price firm basis. The contract price shall remain firm during the currency of the contract.	Since the contract period is more than two years, we request the Employer to consider price variation based on suitable indices as per mutually agreed formulae.	Provisions of the document shall apply.
2.	Section-II, ITB	11.0	17 to 34	11.0 Bid Currencies Prices of all components of the bid shall be quoted in Indian Rupees (INR) only.	Since the bidder will be required to import certain equipment and services from different foreign countries, we request the Employer to allow the bidder to quote prices in other foreign currencies also. Indigenous supplies and services will be quoted in INR only.	Provisions of the document shall apply.
3.	Section-II, ITB	12.7 (ii)	19 to 34	ii. If the bidder withdraws his tender at any stage during the currency of his validity period or denies the execution of work at any stage during the currency of contract period, his earnest money/ security deposit shall stand forfeited in full.	We understand the Bid security of the bidder will be returned as per clauses 12.5 and 12.6 of ITB. Please clarify.	Provisions of the document is amply clear.
4.	Section-II, ITB	13.2	19 of 34	The bidder is required to keep the prices of recommended spares covered under Price Schedule No.6 valid for a period of Five (5) years after Notification of Award for main equipment and mandatory	We would like to clarify that the spares will have to be procured from different OEMs. Hence we request the Employer to consider validity of prices of recommended spares shall be six (6) months from the date of submission of Price bid	Provisions of the document shall apply.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 1 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				spares	for main equipment and mandatory spares.	
5.	Section-II, ITB	21.3	23 of 34	<p>21.3 Compliance with the Provisions of Bidding Documents.</p> <p>No deviation, whatsoever, is permitted by EMPLOYER to any provisions of Bidding Documents. The Bidders are advised that while making their Bid proposals and quoting prices, all conditions may appropriately be taken into consideration. Bidders shall certify their compliance to the complete Bidding Documents by accepting the declaration as per attachment-19.</p> <p>Acceptance of above shall be considered as Bidder's confirmation that any deviation to the any Provisions found anywhere in their Bid Proposal, implicit or explicit, shall stand unconditionally withdrawn, without any cost implication whatsoever to the Employer, failing which the bid security shall be forfeited.</p>	We would understand the bidder will be allowed to propose suitable deviations to the bidding documents as may be required as per clause 23.0 of ITB.	This is a compliant bid. No deviations to the provisions of the bidding documents are allowed.
6.	Section-II, ITB	24.3	25 of 34	Conversion to single currency	We request the Employer to consider allowing the bidder to quote in multiple currencies.	Provisions of the document shall apply

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 2 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
7.	Section-II, ITB	27.0	29 of 34	<p>27.0 Award Criteria</p> <p>Subject to ITB Clause titled 'Employer's Right to Accept Any Bid and to Reject Any or All Bids'.....</p> <p>The Bidder will be required to comply with all requirements of the Bidding Documents without any extra cost to the Employer, failing which his bid security will be forfeited. Employer reserves the right to vary the quantity of any of the Spares and/or delete any item of Spares altogether at the time of Award of Contract.</p>	<p>We understand the contract price shall be suitably increased based on the prices quoted for spares, in case addition of spares at the time of award of contract. Please clarify.</p>	<p>Contract price shall include the cost of spares ordered.</p>
8.	Section-II, ITB	27.0	29 of 34	<p>Third Contract : For providing all services i.e. port handling, port clearance and port charges for the imported goods, further loading, inland transportation for delivery at site, inland transit insurance, unloading, storage, handling at site, installation, insurance covers other than inland transit insurance, testing, commissioning and conducting Performance Guarantee Tests in respect of all the equipments supplied under the 'First Contract' & the 'Second Contract'</p>	<p>We understand civil and allied works will be part of this third contract. Please confirm.</p>	<p>Confirmed.</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 3 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				and all other services as specified in the Contract Documents.		
9	Sec-IV/GCC	3.6.1	4 of 69	Third Contract : For providing all services i.e. port handling, port clearance and port charges for the imported goods, further loading, inland transportation for delivery at site, inland transit insurance unloading, storage, handling at site, installation, insurance covers other than inland transit insurance, erection, testing, commissioning and conducting Performance Guarantee Tests in respect of all the equipment supplied under the 'First Contract' & the 'Second Contract' and all other services as specified in the Contract Documents.		
10	Section-II, ITB	31.0	31 of 34	Within twenty-eight (28) days after receipt of the Notification of Award, the successful Bidder shall furnish performance securities, in the form of bank guarantee, for ten percent (10%) of Contract Price for all the contracts and in the form provided in the section "Forms and Procedures" of the bidding documents.	We request to consider performance security of 5% of Contract Price instead of 10% of contract Price.	Provisions of the document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 4 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
11	Section-II, ITB	36.2	33 of 34	Security deposit of the firm, unless or otherwise specifically mentioned, shall be refunded after 3 months of successful completion of the defect liability period of the contract or settlement of disputes under this work order or reconciliation of accounts with the firm, whichever is later, to the entire satisfaction of the HPGCL.	We understand Security Deposit is not applicable for the subject tender. Request Employer to please clarify.	Amendment issued.
12,	Section-II, ITB	39.0	34 of 34	The terms & conditions not specified in the tender, shall be governed by "HPGCL Works & Purchase Regulations 2015" which are available on the HPGCL website i.e. www.hpgcl.org.in.	The bidder shall be bound by the terms and conditions of the bidding documents only as may be modified on mutual discussion and agreement between the Parties prior to award of contract. Request the Employer to please consider.	Provisions of the document shall prevail.
13.	Section-IV, GCC	6	7 of 69	6. Settlement of Disputes All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and	We would request the Employer to consider the following and modify the subject clause accordingly. 6. Settlement of Disputes All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. Each Party	Provisions of the document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 5 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Conciliation Act, 1996 and the Rule there under, with any statutory modifications thereof for the time being in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana.	shall appoint an arbitrator. The arbitrators appointed by the Parties shall agree and appoint a presiding arbitrator. All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 and the Rule there under, with any statutory modifications thereof for the time being in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana.	
14.	Section-IV, GCC	7.3	8 of 69	7.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's	7.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts. Prices of recommended spares covered under price	Provisions of document shall prevail. Please refer amendment issued to this clause.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 6 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				fees) relating to the supply of spare parts. Prices of recommended spares covered under price Schedule No. 6 shall be kept valid for a period of six (6) months after placement of Notification of Award for Main Equipment and Mandatory Spares.	Schedule No. 6 shall be kept valid for a period of six (6) months from the date of submission of price bid after placement of Notification of Award for Main Equipment and Mandatory Spares.	
15.	Section-IV, GCC	7.3.1.8	9 of 69	7.3.1.8 The Contractor shall guarantee the long term availability of spares to the Employer for the full life of the equipment covered under the Contract. The Contractor shall guarantee that before going out of production of spare parts of the equipment covered under the Contract, he shall give the Employer atleast 2 years advance notice so that the latter may order his bulk requirement of spares, if it so desires. The same provision will also be applicable to Sub-contractors. Further, in case of discontinuance of manufacture of any spares by the Contractor and/or his Sub-contractor, Contractor will provide the Employer, two years in advance, with full manufacturing drawings, material specification and technical information including information on alternative equivalent makes required by the	We would like to clarify that the bidder will source the spares from the OEMs of different equipment. Hence the adherence of the bidder will be subject to the acceptance of the different OEMs of the spares.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 7 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Employer for the purpose of manufacture/procurement of such items.		
16.	Section-IV, GCC	7.3.1.9	10 of 69	7.3.1.9 The prices of all future requirements of item of spares beyond 3 years operational requirement will be derived from the corresponding ex-works price at which the order for such spares have been placed by Employer as a part of mandatory spares or recommended spares, or from the rates of mandatory spares or recommended spares as quoted by/negotiated with the Contractor. Ex-works order price of future spares shall be computed in accordance with the price adjustment provisions covered under the main Contract excepting that the base indices will be counted from the scheduled date of Commissioning of the last equipment under the main contract and there will be no ceiling on the amount of variation in the prices. The above option for procuring future recommended spares by the Employer shall remain valid for the period of 5 years from the date of Commissioning of the equipment.	We would request the Employer to procure the spares directly from OEMs for all future requirements after the Commissioning of the Facilities. Hence we request that this clause be deleted.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 8 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	Section-IV, GCC	7.3.1.11	10 of 69	7.3.1.11 In case the Contractor fails to supply the mandatory, recommended or long term spares in the terms stipulated above, the Employer shall be entitled to purchase the same from the alternate sources at the risk and the cost of the Contractor and recover from the Contractor, the excess amount paid by the Employer over the rates worked on the above basis. In the event of such risk purchase by the Employer, the purchases will be as per the Works and Procurement Policy of the Employer prevalent at the time of such purchases and the Employer at his option may include a representative from the Contractor in finalising the purchases.		Provisions of document shall prevail.
	Section-IV, GCC	7.3.1.12	10 of 69	7.3.1.12 It is expressly understood that the final settlement between the parties in terms of relevant clauses of the Contract Documents shall not relieve the Contractor of any of his obligations under the provision of long term availability of spares and such provisions shall continue to be enforced till the expiry of 5 years period reckoned from the scheduled date of Commissioning of the		Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 9 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Plant and Equipment unless otherwise discharged expressly in writing by the Employer. Further, the provisions pertaining to long term availability of spares shall be extended beyond 5 years applicability period mentioned hereinabove if so desired by the Employer and at the mutually acceptable escalation formula.		
	Section-IV, GCC	7.3.1.13 (i) c)	12 of 69	c) For long term requirement For item of spares that may be ordered by the Employer to cover requirements beyond 3 years of Initial Operation of the plant, the warranty will be till the expiry of 7000 hrs of trouble free operation if used within a period of eighteen (18) months from the date of delivery at site. For item of spares that may be used after eighteen (18) months from the date of delivery at site, the warranty period will be 12 months from the date they are put to use or 7000 hrs of trouble free operation, whichever is earlier. In any case the defect liability of spares will expire at the end of forty eight (48) months from the date of their receipt at		Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 10 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				site.		
17.	Section-IV, GCC	9.2	12 of 69	9.2 The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities (including any data as to boring tests) provided by the Employer, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site (if access thereto was available) and of other data readily available to it relating to the Facilities as at the date twenty-eight (28) days prior to deadline set for price bid submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.	We would like to clarify that the bidder will submit his bid based on the bidding documents and other data, documents and information made available to it by the Employer. Any changes, errors or omissions in the same leading to additional time and cost implications on the contractor after award of contract shall be suitably compensated by the Employer.	Provisions of document shall prevail.
18.	Section-IV, GCC	10.1	13 of 69	10.1 The Employer shall ensure the accuracy of all information and/or data to be supplied by the Employer as described in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract, except when otherwise expressly stated in the Contract.	10.1 The Employer shall ensure the accuracy of all information and/or data to be supplied by the Employer as described in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract. , except when otherwise expressly stated in the Contract.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 11 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
19.	Section-IV, GCC	10.2	13 of 69	10.2 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in Appendix 6.	10.2 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in Appendix 6 within one (1) month from the date of NOA.	Provisions of document shall prevail.
20.	Section-IV, GCC and SCC	13.3.2 & SCC No.20	16 of 69		We request Employer to consider advance payment for the subject tender and hence sub clause 13.2 shall be applicable.	Provisions of document shall prevail.
21.	Section-IV, GCC and SCC	13.3.3 & SCC No. 20	16 of 69		We understand from that this sub clause is not applicable as per SCC.	Provisions of document shall prevail.
22.	Section-IV, GCC	18.4	25 of 69	18.4 Progress of Performance If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 18.2 (Program of Performance), or it becomes	18.4 Progress of Performance If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 18.2 (Program of Performance), or it becomes apparent that it will so fall behind, the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 12 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				apparent that it will so fall behind, the Contractor shall, at the request of the Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Sub-Clause 8.2 (Time for Commencement and Completion), any extension thereof entitled under GCC Sub-Clause 40.1 (Extension of Time for Completion), or any extended period as may otherwise be agreed upon between the Employer and the Contractor.	Contractor shall, at the request of the Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Sub-Clause 8.2 (Time for Commencement and Completion), any extension thereof entitled under GCC Sub-Clause 40.1 (Extension of Time for Completion), or any extended period as may otherwise be agreed upon between the Employer and the Contractor and reasonable compensation to the Contractor for the additional expenses and charges as a result thereof.	
23.	Section-IV, GCC	20.3.5	28 of 69	20.3.5 If any dispute or difference occurs between the Employer and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the parties within a reasonable period, then such dispute or difference may be referred to Expert	Request Employer to clarify the constitution of Expert Settlement Committee and the procedures in connection thereto. Sub-clause 6.2 and 6.3.1 are not available GCC, request Employer to clarify.	Provisions of document shall prevail. Please see the amendment to this clause.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 13 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Settlement Council (ESC) for determination in accordance with GCC Sub-Clause 6.2 hereof. If such dispute or difference is referred to ESC, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Contractor shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the ESC upholds the Contractor's view on the dispute and if the Employer has not given notice under GCC Sub Clause 6.3.1 hereof, then the Contractor shall be reimbursed by the Employer for any additional costs incurred by reason of such instructions and shall be relieved of such responsibility or liability in connection with the dispute and the execution of the instructions as the ESC shall decide, and the Time for Completion shall be extended accordingly.		
24.	Section-IV, GCC	25.3.3 and 25.3.4	38 of 69	25.3.3 The Project Manager shall, after consultation with the Employer, and within forty five (45) days after receipt of the Contractor's notice, issue an	Fifteen (15) days shall be considered in place of forty five (45) days.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 14 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Operational Acceptance Certificate. 25.3.4 If within forty five (45) days after receipt of the Contractor's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Contractor in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the Facilities or the relevant part thereof shall be deemed to have been accepted as at the date of the Contractor's said notice.		
25.	Section-IV, GCC	26.2	39 of 69	If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under GCC Clause 40 (Extension of Time for Completion), the Contractor shall pay to the Employer liquidated damages in the amount computed at the rates specified in the SCC. The aggregate amount of such liquidated damages shall in no event exceed the amount specified as "Maximum" in the SCC. Once the "Maximum" is reached, the Employer may consider termination of the Contract, pursuant to GCC Sub-	It is clarified that the bidder does not envisage termination of Contract in the event the "Maximum" of liquidated damages for delay is reached for reasons of delay not solely attributable to the Contractor.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 15 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Clause 42.2.2.		
26.	Section-IV, GCC	27.2	40 of 69	27.2 The Defect Liability Period shall be eighteen (18) months from the date of Completion of the Facilities (or any part thereof) or twelve (12) months from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC.	27.2 The Defect Liability Period shall be twelve (12) eighteen (18) months from the date of Completion of the Facilities (or any part thereof) or nine (9) twelve (12) months from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC.	Provisions of document shall prevail.
27.	Section-IV, GCC	27.8	41 of 69	27.8 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons. Upon correction of the defects in the Facilities or any part thereof by repair/replacement, such repair/replacement shall have the Defect Liability Period extended by a period of twelve (12) month from the time such replacement/repair of the Facilities or any part thereof.	The bidder envisages that the Defect Liability Period including any extension thereto for repaired/defective components, if any, shall not exceed 24 months from the date of Completion of the Facilities in any case whatsoever.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 16 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
28.	Section-IV, GCC	27.1	42 of 69	27.10 In addition, the Contractor shall also provide an extended warranty for any such component of the Facilities and during the period of time as may be specified in the SCC. Such obligation shall be in addition to the defect liability specified under GCC Sub-Clause 27.2		
29.	Section-IV, GCC	28.2	42 of 69	If, for reasons attributable to the Contractor, the guaranteed level of the Functional Guarantees specified in Appendix 8 (Functional Guarantees) to the Contract Agreement are not met either in whole or in part, the Contractor shall, within a mutually agreed time, at its cost and expense make such changes, modifications and/or additions to the Plant or any part thereof as may be necessary to meet such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications and/or additions, and shall seek the Employer's consent to repeat the Performance Guarantee Test. If the specified Functional Guarantees are not established even during the repeat of the Performance Guarantee Test, the Employer may at its option, either (a)	The bidder envisages that the Facilities/Plant/Equipment shall not be rejected in the event minimum guaranteed level of Functional Guarantees are met by the bidder.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 17 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Reject the Equipment and recover the payments already made, or (b) Terminate the Contract pursuant to GCC Sub-Clause 42.2.2 and recover the payments already made, or (c) Accept the equipment after levy of liquidated damages in accordance with the provisions specified in Appendix-8(Functional Guarantees) to the Contract Agreement.		
30.	Section-IV, GCC	28.3	43 of 69	28.3 In case the Employer exercises its option to accept the equipment after levy of liquidated damages, the payment of liquidated damages under GCC Sub-Clause 28.2, up to the limitation of liability specified in the Appendix-8 (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 28.2, and the Contractor shall have no further liability whatsoever to the Employer in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated	The phrase "limitation of liability" shall be replaced with "the maximum amount of liquidated damages" specified in Appendix-8. We understand it is an inadvertent typographical error.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 18 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				damages have been so paid.		
31.	Section-IV, GCC	42.1.3	61 of 69	Termination for Employer's convenience	In addition to the provisions of sub-clause 42.1.3 reasonable termination charges shall be paid by Employer to Contractor in case of termination of the Contract for Employer's convenience under sub-clause 42.1.	Provisions of document shall prevail.
32.	Section-IV, GCC	42.2.6	64 of 69	If the sum that the Contractor is entitled to be paid, pursuant to GCC Sub-Clause 42.2.5, plus the reasonable costs incurred by the Employer in completing the Facilities, exceeds the Contract Price, the Contractor shall be liable for such excess.	We would like to clarify that the liability of the Contractor shall not exceed the Contract Price in any case whatsoever. Hence the phrase 'the contractor shall be liable for such excess' shall be deleted.	Provisions of document shall prevail.
33.	Section-IV, GCC	48	68 of 69	48. Performance Bank Guarantee Firm shall furnish a Performance Bank Guarantee to HPGCL on prescribed format of HPGCL for an amount of 10% of contract value (Total of First, Second and Third contracts, as applicable) from any of the scheduled nationalized banks acceptable to HPGCL. The performance Bank Guarantee shall remain in force beyond three months after the successful	48. Performance Bank Guarantee Firm shall furnish a Performance Bank Guarantee to HPGCL on prescribed format of HPGCL for an amount of 10% of contract value (Total of First, Second and Third contracts, as applicable) from any of the scheduled nationalized banks acceptable to HPGCL. The performance Bank Guarantee shall remain in force beyond three months after the successful completion of defect liability of the contract	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 19 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				completion of defect liability of the contract period or till the settlement of dispute covered under the Risk Purchase Clause whichever is later. The contract Performance Bank Guarantee furnished by firm is irrevocable, non-transferable & unconditional and HPGCL shall have the right to invoke it notwithstanding any dispute or difference between firm and HPGCL pending before any court tribunal, arbitrator or any other authority	period or till the settlement of dispute covered under the Risk Purchase Clause whichever is later. The contract Performance Bank Guarantee furnished by firm is irrevocable, non-transferable & unconditional and HPGCL shall have the right to invoke it in line with the provisions of the Contract notwithstanding any dispute or difference between firm and HPGCL pending before any court tribunal, arbitrator or any other authority.	
34.	Section-IV, GCC	50	68 of 69	<p>50. Penalty Clause</p> <p>The supplier shall still remain liable to pay penalty @ 0.5% per week or part thereof of the value of the goods delayed where the part supply is acceptable and of the contract value where part supply is not acceptable, subject to a maximum of 5% of the contract value. In case of work orders, unless specified otherwise, the rate of penalty shall be @1% of the contract value per week or part thereof subject to a maximum of 10% of the contract value. A clause of this effect shall be duly incorporated in the terms and conditions of the contract.</p>	We request this clause be deleted since levy of Liquidated Damages is provided for under SCC in case of delay.	Deleted. Please refer amendment in this regard.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 20 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
35.	Section-IV, GCC	51	68 of 69	<p>Supplier's Default liability</p> <p>In the event of breach of any of the terms of the Contract/Purchase Order by the supplier, the Corporation shall reserve the right to terminate the contract without notice to the supplier at any stage and the supplier shall have no claim whatsoever on the corporation on this account. But the supplier shall be made liable to pay to the Corporation a sum equivalent to 5% of the value of the undelivered material as liquidated damages and not as penalty. The supplier shall in addition and without prejudice to the above said damages be required to make good any other loss or damage that may be incurred by the Corporation on making risk purchase in terms of 'Risk Purchase Clause'.</p>	We request this clause be deleted since levy of Liquidated Damages is provided for under SCC in case of delay.	Deleted. Please refer amendment in this regard.
36.	Section-IV, GCC	52.2	69 of 69	<p>52.2 No claim for interest or damage:</p> <p>No claim for interest or damage will be entertained or be payable by the Employer in respect of any amount or balance which may be lying with the Employer or may become due upon settlement/adjudication of any dispute,</p>	We request this clause be deleted as interest shall be payable on all outstanding payments due to the Contractor under the Contract.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 21 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				<p>difference or misunderstanding between the parties by way of arbitration or court proceedings or otherwise or in respect of any delay or omission on the part of the Employer in making intermediate or final payment or in respect of any amount/damage which may be claimed through arbitration or court proceedings or in any other respect whatsoever.</p>		
37.	Section-V, SCC	Completion Time Guarantee (GCC Clause 26) GCC 26.2	1 of 2	<p>a) Liquidated Damages for delay in successful Completion of Facilities shall be as under:</p> <p>If the contractor fails to achieve the successful Completion of Facilities within the agreed work schedule, the Contractor shall pay to the Employer as liquidated damages and not as penalty, a sum calculated at the following rates:</p> <p>One percent (1%) of the contract value (excluding cost of mandatory spares) for each week of delay or part thereof.</p> <p>b) The liquidated damages for delay in supply of spares beyond the dates stipulated under the Contract shall be as follows:</p>	<p>We request LD @0.25% per week on undelivered/uncompleted portion of work of Contract Price shall be considered up to a maximum of 5% of total Contract Price. This shall also apply for delay in supply of spares also.</p>	<p>Provisions of document shall prevail.</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 22 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				<p>One percent (1%) of Ex-works (India) price of undelivered spares, per week or part thereof of delay subject to maximum of Ten percent (10%) of the total Ex-works of all spares included in the scope of work of the contractor under the contract.</p> <p>(c) The total amount of liquidated damages for delay under the contract will be subject to a maximum of Ten percent (10%) of the total Contract Price [total of First / Second Contract & Third Contract (as applicable)].</p>		
38.	Sec-- VII/Book 3 of 3/ Form of Contract Agreement	'Article 1.1		<p>The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:</p> <p>(a) This Contract Agreement and the Appendices hereto (b) Notification of Award (c) Special Conditions of Contract (d) General Conditions of Contract (e) Technical Specifications and Drawings (f) The Bid and Price Schedules submitted by the Contractor (g) Procedures (as listed) (h) Integrity Pact (IP) signed</p>	<p>The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:</p> <p>(a) This Contract Agreement and the Appendices hereto (b) Notification of Award (c) Post-bid discussion and agreement between the Employer and the Contractor (d) The Bid and Price Schedules submitted by the Contractor (e) Special Conditions of Contract (f) General Conditions of Contract (g) Technical Specifications and Drawings (h) Procedures (as listed) (i) Integrity Pact (IP) signed between the</p>	<p>Provisions of document shall prevail.</p> <p>The minutes of post bid discussions are part of the NOA.</p> <p>Integrity pact is not applicable in this case.</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 23 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				between the Employer and the Bidder/Contractor	Employer and the Bidder/Contractor	
39.	Sec-- VII/Book 3 of 3/ Form of Contract Agreement	Article 3 Cl. 3.1		<p>The Time of Completion of the Facilities shall be determined from the date of Notification of Award provided all of the following conditions have been fulfilled within a period of two (2) months from the date of said Notification of Award:</p> <p>(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor;</p> <p>(b) The Contractor has submitted to the Employer the performance security, Security towards faithful performance of the Deed(s) of Joint undertaking (if applicable) and the advance payment guarantee (if applicable);</p> <p>(c) The Employer has paid the Contractor the Advance Payment(if applicable).</p> <p>Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.</p>	<p>The Time of Completion of the Facilities shall be determined from the date of Notification of Award provided all of the following conditions have been fulfilled within a period of one (1) month two (2) months from the date of said Notification of Award:</p> <p>(a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor;</p> <p>(b) The Contractor has submitted to the Employer the performance security, Security towards faithful performance of the Deed(s) of Joint undertaking (if applicable) and the advance payment guarantee (if applicable);</p> <p>(c) The Employer has paid the Contractor the Advance Payment(if applicable); and</p> <p>(d) The Employer has handed-over encumbrance-free site with all rights of access thereto to the Site.</p> <p>Each party shall use its best efforts to fulfill the above conditions for which it is responsible as</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 24 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					soon as practicable.	
40.	Sec-VII/Book 3 of 3	Article 3 Cl. 3.2		If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of Notification of Award because of reasons attributable to the Employer, the Contract would become effective only from the date of fulfillment of all the above mentioned conditions and, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.	If the conditions listed under 3.1 are not fulfilled within one (1) month two (2) months from the date of Notification of Award because of reasons attributable to the Employer, the Contract would become effective only from the date of fulfillment of all the above mentioned conditions and, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.	Provisions of document shall prevail.
41.	Sec-- VII/Book 3 of 3/ Appendix-1 to Form of Contract Agreement			TERMS AND PROCEDURES OF PAYMENT	We request the Employer to consider the following payment terms in connection with the subject tender. 10% instrest free mobilisation advance against submission of Bank Guarantee of equal value. (Supply + services) Supplies:- 70% against dispatch of equipment on pro-rata basis, 10% after receipt of material at Site on pro-rata basis, 2.5% upon Commissioning of Unit 1, 2.5% upon Commissioning of Unit 2) and 2.5% upon completion of PG test for Unit 1, 2.5% upon	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 25 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					completion of PG test for Unit 2 ; Services:- (civil and installation services- 80% prorata, 2.5% on commissioning of first unit, 2.5% on commissioning of second unit, 2.5% on PG test of First Unit, 2.5% on PG Test of Second Unit).	
42.	Sec-- VII/Book 3 of 3/ Appendix- 1 to Form of Contract Agreement				We request all payments for Civil and Installation services shall be paid directly to the Contractor's Bank Account instead of ESCROW account	Provisions of document shall prevail.
43.	Section-VI, Part-A, Sub section-VI	3.00.00, Note	6 of 16	Liquidated damages- Performance-25% of the contract value.	We request LD for performance of 10% of the Contract Price shall be considered.	Provisions of document shall prevail.
44.					Kindly clarify whether this project is having Mega status (exemption of custom duties). We assume that client will provide essentiality certificate. Please confirm.	This project does not have Mega Status.
45.	Section-IV, GCC	7.3.1.4		..... the Contractor will also provide a justification in support of reasonableness of the quoted prices of spares which will, inter-alia, include documentary evidence that the prices quoted by the Contractor to the Employer are not higher than those charged by him from other customers in	It is stated that the details of prices quoted by the Contractor to other customers is confidential data of the contractor, and hence disclosing the same would not be befitting to the contractor.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 26 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				the same period.		
46.	Section-IV, GCC	7.3.1.7		.... will further ensure with his vendors that the Employer, if so desires, will have the right to place order for spares directly on them on mutually agreed terms based on offers of such vendors.	Request for deletion of this clause.	Provisions of document shall prevail.
47.	Section-IV, GCC	7.3.1.13 (i) (a)		..... Such replaced spare parts will have the same Defect Liability as applicable to the replacement made for the defective original part/component provided that such replacement for the original equipment and the spare replaced are again manufactured together.	Kindly clarify the end of the warranty period.	Provisions of document is amply clear.
48.	Section-IV, GCC	15.1		It is suggested to include a new sub clause at the end of this clause.	It is suggested to include a new sub clause at the end of this clause- "For the purposes of this Contract, the Contractor hereby grants a non-exclusive and non-transferable license (without the right to sub-license) to the Employer under the patents, utility models or other industrial property rights owned by the Contractor or by the third party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to Employer a non-exclusive and non-transferable	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 27 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					rights (without the right to sub-license) to use the know-how, software and other technical information disclosed to the Employer under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual property right from the Contractor or any third Party to the Employer.”	
49.	Section-IV, GCC	27.2		Defects Liability	<p>It is requested to include the following as sub-clause (d)-</p> <p>“27.2. The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the following causes:</p> <p>(d) erosion/corrosion.”</p> <p>It is requested to include the following sub-clause at the end of this clause</p> <p>“All "implied" or "statutory" warranties and conditions including all warranties of fitness for purpose shall be excluded.”</p>	Provisions of document shall prevail.
50.	Section-IV (GCC)	27.7			It is requested to modify the clause to be read as	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 28 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					follows: "If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) thirty (30) days),"	prevail
51.	Section-IV, GCC	27.8			Kindly clarify the sunset warranty period.	Document is amply clear.
52.	Section-IV, GCC	27.8.1		Latent defects period of 5 years	Request to delete the sub-clause.	Provisions of document shall prevail.
53.	Section-IV, GCC	27.8		In case, there is any dispute....	Request to delete the sub-clause.	Provisions of document shall prevail.
54.	Section-IV, GCC	30		Limitation of Liability	Request for inclusion of the following and the clause to be read as: "(a). The Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs or loss of revenue, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 29 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference		Specification Requirement	Bidder's Query	HPGCL REPLY
				Employer and"	
55.	Section-IV, GCC	33.1	Loss of or Damage to Property; Accident or Injury to workers; Indemnification	Request to modify the sub-clause as follows: in respect of the death or injury of any person or loss of or damage to any third property (other than the Facilities whether accepted or not), ...	Provisions of document shall prevail.
56.	Section-IV, GCC	34.1	Insurance	Request to kindly delete the following in Cl. 34.1 "The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld"	Provisions of document shall prevail.
57.	Section-IV, GCC	34	Insurance	Please take note that ANDRITZ has an umbrella Insurance Coverage and under the same, the customer and/or sub-contractor are not mentioned as co-insured. Further, there are no waiver of subrogation in favour of the co-insured. ANDRITZ cannot accept the condition that the insurance shall be approved by the customer.	Provisions of document shall prevail.
58.	Section-IV, GCC	39.2.5	Changes originating from Employer	Request for deletion of the sub-clause	Provisions of document shall prevail. Please see the

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 30 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
						amendment issued to the clause.
59.	Section-IV, GCC	42.2.2			Request for modification of the clause to be read as follows: “... If the Contractor fails to remedy or take steps to remedy the same within fourteen (14) days thirty (30) days of its receipt of such notice,”	Provisions of document shall prevail.
60.	Section VII Part 3 of 3	Form No. 2		Bid Security Form	Please add after main body text of each guarantee Form: “this Bank guarantee is subject to the Uniform Rules for Demand Guarantees; ICC publication no. 758”	Provisions of document shall prevail.
61.	Section VII Part 3 of 3	6		Performance Security Form	Please add after main body text of each guarantee Form: “this Bank guarantee is subject to the Uniform Rules for Demand Guarantees; ICC publication no. 758”	Provisions of document shall prevail.
62.	Section VII Part 3 of 3	7		Bank Guarantee Forms for Advance Payment	Please add after main body text of each guarantee Form: “this Bank guarantee is subject to the Uniform Rules for Demand Guarantees; ICC publication	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 31 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					no. 758"	
63.	Appendix 3	Insurance Requirements		Insurance to be taken by the Contractor	Request to delete the following Cl. (1) "The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld"	Provisions of document shall prevail.
64.	Appendix 3	Insurance Requirements			Request to kindly replace both in A Marine Cargo and B Installation all risk 110% with 100%.	Provisions of document shall prevail.
65.	Appendix 3	Insurance Requirements			Please delete Note 1.	Provisions of document shall prevail.
66.	Appendix 6	Scope of Works and Supply by the Employer			Please insert Employers Responsibilities in line with Clause 10 GCC.	Provisions of document shall prevail.
67.	Tech. Spec. Sec VI Part A Sub Sec III	3.00.00		iii) Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantee shall not exceed twenty five percent (25%) of the Contract Price	Request to kindly replace "twenty five (25%) of the Contract Price" with "Ten (10%) of the Contract Price"	Provisions of document shall prevail.
68.	Section-II,	10.7	17 of 34	Prices quoted by the Bidder shall be on price firm basis. The contract price shall	In view of general practices being followed for EPC Packages in Power sector we request	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 32 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	ITB			remain firm during the currency of the contract.	HPGCL to amend the tender so as to make provisions of price adjustments applicable	prevail.
69.	Section-IV, GCC	7.3.1.13 (i)	11 of 69	For <u>3 years operational spares</u> (both mandatory and recommended)	Bidder requests HPGCL to kindly clarify on the no. of years of O&M to be considered in scope.	O&M contract will be for two(2) years. Refer technical specification for detail.
70.	Section-II, ITB	27.1	31 of 34	The Employer shall place separate Contract for O&M on Bidder <u>for two years</u> as per scope of work and terms and conditions specified in Technical Specifications.		
71.	Section-IV GCC	14	17 of 69	Taxes & Duties	We request HPGCL to confirm whether BOCW Cess shall be applicable on entire Contract Price or shall be applicable on civil portion only	The building and other construction workers cess shall be as per the provision of Building and other construction workers welfare (RE&CS)act 1996.
72.	Section-IV GCC	14.4	28 of 69	For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies and charges prevailing on seven (7) days prior to the deadline set for price bid	We request HPGCL to modify the clause as under- For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies,	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 33 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				submission in the country where the Site is located....	cess and charges prevailing on seven (7) days prior to the deadline set for price bid submission in the country where the Site is located....	
73.	Section-IV GCC	40.4	59 of 69	Documents for consideration of Time Extension The following documents shall form the principal basis for consideration of Time Extension pursuant to GCC clause 40....	(i) In addition to the specified documents, the relevant correspondences exchanged between the parties should also be considered for time extension. (ii) In case, the time extension is due to reasons solely attributable to the Employer, the contractor shall be compensated for additional expenses incurred during extended period. Please confirm.	Provisions of document shall prevail.
74.		22.1.3	31 of 69	Labour	We request for insertion of following new clause as sub-clause (g) – <u>If due to an enactment of any new labour related Act or Statute and rules made thereunder or any modification to the labour related Acts/Statute or rules made thereunder, all after seven (7) days prior to the date of submission of Price Bid(s) and as a consequence thereof, the Contractor has to incur additional cost or expenditure, the same will be reimbursed by the Employer to the Contractor, excepting those due to reasons</u>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 34 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					<u>attributable to the Contractor.</u>	
75.	Section-VII, Book 3 of 3, Appendix-1 to Form of Contract Agreement	A1. (I)	1 of 18	Seventy Percent (70%) of FOB price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis	Initial interest free advance, not considered in payment terms. Bidder requests HPGCL to amend the tender so as to make provisions for payment of initial interest free advance amount of 10 %, to enable bidders to have positive cash flow during the execution of project.	Provisions of document shall prevail.
76.	Section-VII, Book 3 of 3, Appendix-1 to Form of Contract Agreement	B1. (I)	3 of 18	Seventy Percent (70%) of Ex-Works Price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on:		
77.	Section-IV, GCC Securities	13.2.1	15 of 69	The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the advance payment for supply of Plant & Equipment and 110% of the advance amount for Installation Services and Civil & Allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement,	No advance payment is envisaged in Appendix-1 (Terms and Procedures of Payment.) Bidder requests HPGCL to amend the tender so as to make provisions for payment of initial interest free advance amount of 10 %, to enable bidders to have positive cash flow during the execution of project.	Advance payment-not applicable. Refer SCC item no. 20.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 35 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
78.	Section-VII, Book 3 of 3 Appendix-6 to Form of Contract Agreement	2.0	2 of 3	Providing drinking and service water for bidder's.....supply of quality water as per standards.	We request HPGCL to provide construction water free of cost.	Refer Technical specification in this regard.
79.	Sec-VI, Part-A, III-A1	1.12.01	6 of 6	<u>O & M cost will be paid at the rate of two percent of the total awarded project cost in the first year and at the rate of escalation three percentage per year for subsequent year.</u> Payment for O & M charges will be paid in each year on monthly basis.	We understand that O&M cost as specified in the referred clause shall be exclusive of any taxes & duties. Any applicable taxes & duties shall be reimbursed by the Employer at actuals along with monthly payments. Please confirm.	Refer Cl. 14 of GCC.- Taxes and duties.
80.	Section-IV, GCC Securities	13.2.1	15 of 69	The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the advance payment for supply of Plant & Equipment and 110% of the advance amount for Installation Services and Civil & Allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement,	The security shall not exceed 100% of the value of advance payment as per standard practice followed for advance bank guarantees. Hence, bidder requests to delete the highlighted portion.	Refer Sl. No. 74 above.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 36 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
81.	Section-IV, GCC Defect Liability	27.8	41 of 69	..... shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons. Upon correction of the defects in the Facilities or any part thereof by repair/ replacement, such repair/ replacement shall have the Defect Liability Period for a period of twelve (12) month from the time such replacement/repair of the Facilities or any part thereof	Extended warranty period is open ended. Request you to specify the maximum term for validity of such defect liability as 2 years.	Provisions of document shall prevail.
82.	Section-IV, GCC War Risks	38.6	54 of 69	In the event of termination pursuant to GCC Sub-Clauses 38.3, the rights and obligations of the Employer and the Contractor shall be as specified in GCC Sub- Clauses 42.1.2 and 42.1.3, except that the Contractor shall have no entitlement to profit under paragraph (e) of GCC Sub-Clause 42.1.3 in respect of any unexecuted Facilities as of the date of termination.	Bidder understand that upon termination due to force majeure, unforeseen circumstances or war risks, in addition to the payments to the Contractor in accordance with the Contract, Contractor should be entitled for reasonable costs including cost towards work in progress, procured materials, storage and maintenance.	Provisions of document shall prevail.
83.	Section-IV, GCC	41	59 of 69	Suspension	Bidder understand that for any suspension of Work by Employer which is not attributable to the Contractor, Contractor should be entitled to an extension of time for a period which is not less than the suspension period.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 37 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					Further, we understand that in respect of suspension of Works, Employer should reimburse reasonable costs borne by the Contractor towards the same, such as the cost of work in progress, procured materials, storage and maintenance of Works etc.	
84.	Section-I, IFB	1	1 of 9	Single Stage Two Envelope Bid	HPGCL is requested to kindly amend it to two stage bidding wherein stage 1 bid shall be comprising of Techno Commercial bid and Stage 2 bid shall be price bid.	Provisions of document shall prevail.
85.	Section-II, ITB	10.4 (d) (i)	15 of 34	Bidders are advised to price their bids in such a manner that Installation Price Component of the bid price (excluding Civil/Structural works price) for RGTPP, Hisar should not be less than 15% and should not be more than 20% of the cumulative total of FOB Price of Main Equipment indicated in Schedule No.1 and Ex-works Price of Main Equipment indicated in Schedule No.2 for the respective plant.	HPGCL is requested to kindly remove the upper ceiling of 20%.Lowe limit of 15% is acceptable. HPGCL to confirm.	Provisions of document shall prevail.
86.	Section-II, ITB	10.4 (d) (ii)	15 of 34	Civil Works Price Component of the bid price (including Site Fabricated Structural works price) for RGTPP, Hisar should not be less than 32% and should not be more than 42% of the cumulative total of FOB Price of Main Equipment	HPGCL is requested to kindly remove the upper ceiling of 42%.Lowe limit of 32% is acceptable. HPGCL to confirm.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 38 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				indicated in Schedule No.1 and Ex-works Price of Main Equipment indicated in Schedule No.2 for the respective plant		
87.	Section-II, ITB	10.7	17 of 34	Prices quoted by the Bidder shall be on price firm basis.	Price variation shall be applicable. The bidder intends to consider Price Variation Clause (PVC) for the entire duration of the FGD project. HPGCL to confirm.	Provisions of document shall prevail.
88.	Section-II, ITB	15	17 of 34	Submission of Bids	Bidder understand that only the documents comprising Bid Security, Power of Attorney etc in accordance with ITB sub-clause 8.1.1 shall be submitted in physical form after being sealed and marked in the manner specified in ITB are to be submitted in hard copy. NO OTHER DOCUMENT IS TO SUBMITTED OFFLINE. Only online bid is to be submitted. HPGCL to confirm.	Provisions of document shall prevail.
89.	Section-II, ITB	25.6	28 of 34	Price Negotiation	HPGCL to delete the said clause. L1 bidder shall be awarded the contract without any negotiation. HPGCL to confirm.	Provisions of document shall prevail.
90.	Section-III, BDS	3.1.4.3	5 of 18	Deed of Joint Undertaking (DJU)	Bidder has Technology Collaboration Agreement (TCA)/Technology License Agreement (TLA) with	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 39 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					<p>Reputed QFGDM (a competent FGD supplier) valid upto 2028. In view of this, all Bids/M.O.M. etc. shall be signed by Bidder's personnel as mentioned in Power of Attorney on behalf of both the Bidder and Collaborator.</p> <p>Further, there is no need of submission of Deed of Joint Undertaking (DJU). However, we confirm that we meet the Qualifying Requirements of the Tender.</p> <p>The same practice has been followed by the Bidder in recent FGD tenders of various Central, State and Private Utilities.</p> <p>HPGCL to confirm.</p>	prevail.
91.	Section-III, BDS	5	11 of 18	Amount of bid security	<p>As Bidder is a public sector company. Submission of EMD should be waived, bidder shall submit the incorporation details of the company as proof.</p> <p>HPGCL to confirm.</p>	Provisions of document shall prevail.
92.	Section-III, BDS	9	13 of 18	Completion of all Facilities" shall be attained within 10.5 months from the date of Notification of Award	<p>It is contradictory with the work schedule furnished under the same clause.</p> <p>HPGCL to rectify and confirm.</p>	Refer amendment issued in this regard.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 40 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
93.	Section-III, BDS	9	13 of 18	Work Schedule for FGD package for HPGCL	Shutdown time frame is not mentioned. HPGCL to provide a minimum of 30 days shutdown time for hooking up the FGD package with main plant.	Provisions of document shall prevail.
94.	Section-VII, Book 3 of 3	Appendix 1	Page 1 of 18	Terms and procedures of payment Schedule no 1 (CIF components) & Schedule no 2 (Ex-works) components	<p>HPGCL to amend the Terms of Payment as follows:</p> <p>Supplies:(for both onshore and offshore)</p> <p>(i) 10% (Ten percent) of the supply price as interest free advance on contract signing.</p> <p>(ii) 80% (Eighty percent) of the total ex-works supply price as per agreed billing break-up against dispatch documents (along with 100% payment towards Freight, Insurance and Taxes & Duties)</p> <p>(iii) 5% (Five percent) on successful commissioning</p> <p>(iv) 5% (Five percent) on PG Test</p> <p>Services:</p> <p>i) 10% (Ten percent) of the services price as interest free advance.</p> <p>ii) 80% (Eighty percent) of the total Services price as per agreed billing break-up against progressive works (along with 100% payment</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 41 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					towards Insurance and Taxes & Duties) (iii) 5% (Five percent) on successful commissioning (iv) 5% (Five percent) on PG Test	
95.	Section VII, Part 3 of 3	5. Form of Contract Agreement, Appendix-1	1-18/18	Existing	Advance payment is requested by bidder. In a general manner, 10% of the contract price should be paid as advance payment to startup the project. Kindly refer to Terms and Procedures of Payment as stipulated in other NTPC's tenders.	Provisions of document shall prevail.
96.	Section-IV, GCC		Page 70	All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 and the Rule there under, with any statutory modifications thereof for the time being	As this is International Competitive Bidding, we suggest Settlement of Disputes should as per international clause, we suggest the clauase as follow: Any dispute arising out of or in connection with this Contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration administered by the Singapore International Arbitration Centre ("SIAC") in accordance with the Arbitration Rules of the Singapore International Arbitration Centre ("SIAC Rules") for the time being in force, which rules are deemed	Provisions of document shall prevail..

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana	to be incorporated by reference in this Clause. The seat of the arbitration shall be Singapore. The Tribunal shall consist of three arbitrators. The language of the arbitration shall be English."	
97.	Section-IV, GCC	Clause 42.1	P-123	42.1.1 The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Sub-Clause 42.1	We suggest that contract terminate clause should be mutually discussed by each other considering all kinds of possibility, so that we suggest kindly delete this article.	Provisions of document shall prevail.
98.	Section-VII Book 3 of 3	APPENDI X-I: TERMS AND PROCEDURES OF PAYMENT	P27	Schedule No.1 : Plant and Equipment (excluding Mandatory Spares Type Tests) quoted on CIF (Indian Port-of-entry) basis (I) Seventy Percent (70%) of FOB price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on:	We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor: Schedule No.1 : Plant and Equipment (excluding Mandatory Spares Type Tests) quoted on CIF (Indian Port-of-entry) basis (1) 1st installment Initial Advance Payment:5% on Acceptance of Letter of Award (LOA); (2) 2nd installment Initial Advance Payment:5% on contract signing or 90 days from the date of LOA, whichever is earlier	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 43 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					(3) Sixty Percent (60%) of FOB price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on	
99.				<p>Schedule No. 2 :</p> <p>Plant and Equipment (excluding Mandatory Spares & Type Tests) quoted on Ex-works (India) basis Seventy Percent (70%) of Ex-Works Price component of the Contract</p> <p>price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on</p>	<p>We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor:</p> <p>Schedule No. 2 :</p> <p>Plant and Equipment (excluding Mandatory Spares & Type Tests) quoted on Ex-works (India) basis</p> <p>(1) 1st installment Initial Advance Payment:5% on Acceptance of Letter of Award (LOA);</p> <p>(2) 2nd installment Initial Advance Payment:5% on contract signing or 90 days from the date of LOA, whichever is earlier</p> <p>(3) Sixty Percent (60%) of Ex-Works Price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
100.		<p>Schedule 1, 2 and 6 :</p> <p>Payment Terms for Mandatory Spares and Recommended Spares (When ordered)</p> <p>Eighty percent (80%) of CIF/Ex-works(India) price component of the spares : upon receipt and storage at site and on physical verifications by the Project Manager and against invoices and shipping documents along with Material Despatch Clearance Certificate (MDCC) issued by the Employer</p>	<p>We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor:</p> <p>Schedule 1, 2 and 6 :</p> <p>Payment Terms for Mandatory Spares and Recommended Spares (When ordered)</p> <p>(1) 1st installment Initial Advance Payment:5% on Acceptance of Letter of Award (LOA);</p> <p>(2) 2nd installment Initial Advance Payment:5% on contract signing or 90 days from the date of LOA, whichever is earlier</p> <p>(3) Seventy percent (70%) of CIF/Ex-works(India) price component of the spares : upon receipt and storage at site and on physical verifications by the Project Manager and against invoices and shipping documents along with Material Despatch Clearance Certificate (MDCC) issued by the Employer</p>	Provisions of document shall prevail.
101.		<p>Schedule No. 4:</p> <p>Erection Portion (of Plant and Equipment)</p> <p>Eighty Percent (80%) of the Erection</p>	<p>We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor:</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 45 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
		<p>Portion of installation Services</p> <p>component of contract price (excluding Civil & Structural works) will be made on pro-rata basis against progressive erection of the equipment on</p>	<p>Schedule No. 4:</p> <p>(1) 1st Initial Advance Payment:5% on Establishment of project Site Office;</p> <p>(2) 2nd Initial Advance Payment:5% After the Contractor moves required construction plant and machinery and commences at site.</p> <p>(3) Seventy percent (70%) of the Erection Portion of installation Services component of contract price (excluding Civil & Structural works) will be made on pro-rata basis against progressive erection of the equipment on</p>	
102.		<p>Schedule No. 4:</p> <p>Civil Works Portion (including construction materials but Excluding Cost of Structural)</p> <p>Eighty Percent (80%) of the Erection Portion of installation Services</p> <p>component of contract price (excluding Civil & Structural works) will be made on pro-rata basis against progressive erection of the equipment on</p>	<p>We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor:</p> <p>Schedule No. 4:</p> <p>(1) 1st Initial Advance Payment:5% on Establishment of project Site Office;</p> <p>(2) 2nd Initial Advance Payment:5% After the Contractor moves required construction plant and machinery and commences at site the first activity.</p> <p>(3) Seventy percent (70%) of the Erection</p>	<p>Provisions of document shall prevail.</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					Portion of installation Services component of contract price (excluding Civil & Structural works) will be made on pro-rata basis against progressive erection of the equipment on	
103.				<p>Schedule No. 4: Structural works portion, including cost of materials, fabrication & erection</p> <p>Eighty Percent (80%) of the total Civil Works Price Component shall be paid progressively on</p>	<p>We suggest payment terms as per common international projects, in which certain amount advance payment should be paid by purchaser to reduce financial pressure for contractor:</p> <p>Schedule No. 4: (1) 1st Initial Advance Payment:5% on Establishment of project Site Office; (2) 2nd Initial Advance Payment:5% After the Contractor moves required construction plant and machinery and commences at site the first activity. (3) Seventy percent (70%) of the total Civil Works Price Component shall be paid progressively on...</p>	Provisions of document shall prevail.
104.	new clause			Local Content	<p>This tender has any local content requirement? if have, what's the definition and calculation of "Local Content"?</p> <p>here attached sample Local Content article for</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 47 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					your reference please: 'Local content' means the amount of value added in India which shall, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.	
105.	Section-I, IFB	4.0 (5)	2 of 9	Bid Opening Date & Time : Up to 30.05.2019 by 15:00 hrs. (IST)	We request HPGCL to kindly extend bid submission date by at least two month from current bid submission date	Any change in bid submission date will be updated in the portal.
106.	Section-II, ITB	8.1.1(f) & 8.1.2(r)	5 of 34 11 of 34	(f) Attachment 19 : Integrity Pact – Not Applicable The "Integrity Pact" (if applicable) shall be furnished duly signed in accordance with the provision of Integrity Pact specified in BDS. (r) Attachment 19 : Integrity Pact The "Integrity Pact" (if applicable) shall be furnished duly signed in accordance with the provision of Integrity Pact specified in BDS.	We request HPGCL to clarify whether Integrity Pact is applicable or not.	Integrity pact-Not applicable. Please refer ITB cl no. 8.1.1(f)
107.	Section-II,	8.1.2	7 of 34	Notwithstanding anything stated above, the Employer reserves the right to	Noted but please confirm the Employer will notice in advance to the Contractor not later than 1	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 48 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	ITB			undertake a physical assessment of the capacity and capabilities including financial capacity and capability of the Bidder / his Collaborator(s) / Associate(s) / Subsidiary(ies) / Group Company(ies) to perform the Contract, should the circumstances warrant such assessment in the overall interest of the Employer.	month before such physical assessment in order for proper and kind arrangement.	prevail.
108.	Section-II, ITB	8.2.1 (viii)	13 of 34	Attachment 6P : CIF Value of Equipment and Mandatory Spares to be imported from Associate/Collaborator: Details of Equipment (including type test) and Mandatory Spares to be imported from Associate/Collaborator by the Manufacturer or the bidder, as per EMPLOYER's format.	As FGD projects involve most of the supplies from sub-vendors, we therefore request deletion of the requirement to submit Attachment 6P. Kindly confirm.	Provisions of document shall prevail.
109.	Section-II, ITB	10.3	13 of 34	Schedule No. 3 Local Transportation including Port handling, Port clearance, Port charges, Inland insurance and other local costs incidental to delivery of Plant & Equipment and Mandatory Spares	We request HPGCL to kindly review Excel Format of Price Schedule No. 3 as currently it is appearing as a Schedule for Installation Services.	Schedule No. 3 reviewed and found as per bidding documents (refer excel sheet Price schedules-Hissar-ICB uploaded with tender documents)
110.	Section-II,	10.4 (d)(i)	15 of 34	Bidders are advised to price their bids in such a manner that Installation Price	Being an EPC Contract, we request HPGCL to kindly remove the restriction in terms of % supply	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 49 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	ITB			Component of the bid price (excluding Civil/Structural works price) for RGTPP, Hisar should not be less than 15% and should not be more than 20% of the cumulative total of FOB Price of Main Equipment indicated in Schedule No.1 and Ex-works Price of Main Equipment indicated in Schedule No.2 for the respective plant. In case the Installation Price is below.....	price for both Installation Services and Civil Works portion. Kindly confirm.	prevail.
111.	Section-II, ITB	10.4 (d)(ii)	15 of 34	Bidders are advised to price their bids in such a manner that the Civil Works Price Component of the bid price (including Site Fabricated Structural works price) for RGTPP, Hisar should not be less than 32% and should not be more than 42% of the cumulative total of FOB Price of Main Equipment indicated in Schedule No.1 and Ex-works Price of Main Equipment indicated in Schedule No.2 for the respective plant. In case the Civil Works Price.....		Provisions of document shall prevail.
112.	Section-II, ITB	11.0	17 of 34	Bid Currencies Prices of all components of the bid shall be quoted in Indian Rupees (INR) only.	Being ICB tender, we request HPGCL to kindly allow bidders to quote Plant and Equipment including Type Tests charges and mandatory Spares, in both Schedule 1 and Schedule 2, in	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 50 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					combination of multiple currencies. Also requeste HPGCL to accordingly modify the excel formats of price Schedules to provide provision for quoting in multiple foreign currencies.	
113.	Section-II, ITB	12.5	18 of 34	The Bid Security of the bidders who are unsuccessful after opening of Price Bids shall be returned immediately after placement of award on the successful bidder.	Please clarify whether placement of award means 'Notification of Award'.	Yes.
114.	Section-II, ITB	25.5	28 of 34	New Note 3.	In line with Make in India policy of Government of India and in line with contemporary FGD Tenders of Central and State Utilities, we request HPGCL to kindly introduce the following: " CIF price in Schedule -1 plus CIF value of Import Content of Ex-works price included in Schedule -2 quoted by the Bidder), shall in no case be more than 30% of the total supply value quoted by the Bidder in Price Schedule - 1 plus Price Schedule -2. In case the Bidder quotes CIF value of import of content more than 30% of the Total Supply value, its Bid shall be rejected."	Provisions of document shall prevail.
115.	Section-II, ITB	39.0	34 of 34	The terms & conditions not specified in the tender, shall be governed by "HPGCL Works & Purchase Regulations 2015" which are available on the HPGCL	We request HPGCL to delete the clause as Contractor shall be governed by Terms & conditions as per the Tender document only. Kindly confirm.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 51 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
RGTPP, HISAR (2X600 MW)
CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				website i.e. www.hpgcl.org.in.		
116.	Section-II, ITB Section-IV, GCC	31.1 14.3	31 of 34 18 of 69	In case Deed(s) of Joint Undertaking by the Contractor along with his associate(s)/collaborator(s) form part of the Contract, then, unconditional Bank Guarantee(s) from such associate(s) / collaborator(s) towards faithful performance of the Deed(s) of Joint Undertaking for amount(s) specified in the Bid Data Sheets shall be furnished within twenty eight (28) days after Notification of Award. These Bank Guarantees shall be furnished in the form provided in the section "Forms and Procedures" of the bidding documents and shall be valid till such period as specified in the corresponding format for Deed of Joint Undertaking.	It will take roughly 14 days to issue DJU BG, as foreign Associator/Collaborator needs to issue BG through a Bank of Associato's/Collaborator's country. As Contract date will be mentioned in DJU BG and Contract will be signed within 28days from NOA, we would likeHPGCL to kindly amend the clause as "within forty two (42) days after Notification of Award". Kindly confirm.	Provisions of document shall prevail.
117.	BDS Sec-III Section VIII (Part 3 of 3)	4.5 ITB 10.7 Appendix 2	11 of 18	Price Basis: The contract shall be on firm price basis and no escalation, what so ever, shall be allowed during the currency of the contract. The contract price shall remain firm during the currency of the contract.	As the FGD project will involve execution over long duration, we request HPGCL to kindly consider Price Adjustment provision in line with contemporary NTPC FGD Tenders. Kindly consider and confirm.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 52 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
118.	Section-III, BDS	5.0 ITB 12.2	11 of 18	Period of validity of Bid Security: 270 days from the date of bid opening (Techno-Commercial bid-Envelope –I)	In line with standard industry practice we request HPGCL to kindly consider validity of Bid Security as 180 days from the date of bid opening (Techno-Commercial bid-Envelope –I). Kindly confirm. Also please correct the ITB clause reference. It's 13.0.	Provisions of document shall prevail.
119.	Section-III, BDS	9.0 ITB 36.0	13 of 18	Time to complete the facilities from the date of Notification of Award "Completion of all Facilities" shall be attained within 10.5 months from the date of Notification of Award.	We request HPGCL to kindly review the clause as we understand that as per Tender Clauses, Completion of Facilities shall be 27 months for first unit and 30 months for second unit. Kindly review.	Please refer amendment issued in this regard.
120.	Section-III, BDS	9.1	13 of 18	The program for supplying installing, commissioning including completion of facilities and supply of mandatory spares covered in the contract shall be in the form of Master Network identifying the Key phases in various areas of total works, like design, procurement, manufacture, field activities. In addition, key milestone dates (10-15 nos.) shall also be identified for the complete facilities under the subject package. The Master Network shall conform to the	We request HPGCL to kindly clarify whether reference to "key milestone dates (10-15 nos.)" is for Clause 9.2 of Section -III (BDS).	Yes.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 53 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				following schedule dates :		
121.	Section-IV, GCC	4	6 of 69	Notices	Please add e-mail also as one of the mode of sending notices.	Please refer item no. 1 of SCC regarding contact details of the Employer and the Project Manager.
122.	Section-IV, GCC	6	7 of 69	<p>Settlement of Disputes</p> <p>All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 and the Rule there under, with any statutory modifications thereof for the time being in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana.</p>	<p>We request HPGCL to kindly modify the clause as below:</p> <p>All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. <u>Any dispute submitted by a party to arbitration shall be heard by an arbitration panel composed of three arbitrators. The Employer and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel.</u> All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 and the Rule there</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 54 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					under, with any statutory modifications thereof for the time being in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana.	
123.	Section-IV, GCC	7.2	8 of 69	The contractor shall, unless specifically excluded in the contract perform all such work and/or supply all such items and materials not specifically mentioned in the contract but that can be responsibly inferred from the contract as being required for attaining completion of the Facilities as if such work and/or items ,and materials were expressly mentioned in the contract.	Scope of supplies and the work content shall be limited to the scope and requirement as defined in the resultant Contract and shall not be based on inferences or deemed to be included. Notwithstanding anything to the contrary provided in this Contract, if the Employer requires any additional work, including but not limited to material, equipment, service, performance, storage, quality and/or quantities, in or to the Facilities which are not explicitly mentioned in the Contract, its further indicated codes and standards and/or the applicable laws or regulations, such work shall be treated as GCC 39.2 (Changes Originating from Employer).	Provisions of document shall prevail.
124.	Section-IV, GCC	7.3.1.4	9 of 69	To enable the Employer to finalise the requirement of recommended spares which are ordered subsequent to placement of order for main equipment/ plant, in addition to necessary technical details, catalogue and other such information brought-out herein above,	As price levels and other such order details will be governed by the confidentiality clause of the Contract between Employer and Contractor and therefore can not be shared with any third party. Therefore we request HPGCL to delete the requirement of Documentary Proof in the sub-	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 55 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				the Contractor will also provide a justification in support of reasonableness of the quoted prices of spares which will, inter-alia, include documentary evidence that the prices quoted by the Contractor to the Employer are not higher than those charged by him from other customers in the same period.	clause. Kindly confirm.	
125.	Section-IV, GCC	7.3.1.8	9 of 69	The Contractor shall guarantee the long term availability of spares to the Employer for the full life of the equipment covered under the Contract. The Contractor shall guarantee that before going out of production of spare parts of the equipment covered under the Contract, he shall give the Employer atleast 2 years advance notice so that the latter may order his bulk requirement of spares, if it so desires. The same provision will also be applicable to Sub-contractors. Further, in case of discontinuance of manufacture of any spares by the Contractor and/or his Sub-contractor, Contractor will provide the Employer, two years in advance, with full manufacturing drawings, material specification and technical information including information on alternative equivalent makes required by the	We request HPGCL to modify the clause as below: The Contractor shall guarantee the long term availability of spares to the Employer for the full life of the equipment covered under the Contract. The Contractor shall guarantee that before going out of production of spare parts of the equipment covered under the Contract, he shall give the Employer reasonable 2 years advance notice so that the latter may order his bulk requirement of spares, if it so desires. The same provision will also be applicable to Sub-contractors. Further, in case of discontinuance of manufacture of any spares by the Contractor and/or his Sub-contractor, Contractor will provide the Employer, with material specification and technical information including information on alternative equivalent makes required by the Employer for the purpose of manufacture/procurement of such	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 56 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Employer for the purpose of manufacture / procurement of such items.	items.	
126.	Section-IV, GCC	7.3.1.9	10 of 69	<p>The prices of all future requirements of item of spares beyond 3 years operational requirement will be derived from the corresponding ex-works price at which the order for such spares have been placed by Employer as a part of mandatory spares or recommended spares, or from the rates of mandatory spares or recommended spares as quoted by/negotiated with the Contractor. Ex-works order price of future spares shall be computed in accordance with the price adjustment provisions covered under the main Contract</p> <p>excepting that the base indices will be counted from the scheduled date of Commissioning of the last equipment under the main contract and there will be no ceiling on the amount of variation in the prices. The above option for procuring future recommended spares by the Employer shall remain valid for the period of 5 years from the date of Commissioning of the equipment.</p>	<p>We request HPGCL to modify the clause as below:</p> <p>The prices of all future requirements of item of spares beyond 3 years operational requirement will be as per prevailing rates at the time of placement of the order.</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
127.	Section-IV, GCC	7.3.1.13	11 of 69	The Contractor shall warrant that all spares Supplied will be new and in accordance with the Contract Documents and will be free from defects in design, material and workmanship and shall further guarantee as under.	We request HPGCL to remove the requirement of defect liability period for mandatory and recommended spares in line with standard industry practice. Kindly confirm.	Provisions of document shall prevail.
128.	Section-IV, GCC	9.3, 10.3, 10.4	13 of 69	The Contractor shall acquire in its name all permits, approvals and / or licenses.....under GCC Sub-Clause 10.3 hereof and that are necessary for the performance of the Contract.	Kindly confirm that all the clearances required, if it relates to the construction or execution of the Contract shall be contractor's responsibility, and if clearances are required for the setting up of the facility the same shall be Owners responsibility. In any case any additional clearances will be discussed and mutually agreed between the Employer and Contractor, with the cost being borne by Employer and necessary time extension being granted.	Refer Cl. 9 and Cl 10 of GCC, where in the responsibilities of the Employer and the Contractor is defined.
129.	Section-IV, GCC	9.6 (Add)	19 of 68	(Add new clause)	We request HPGCL to add the following new clause 9.6 Notwithstanding anything to the contrary provided in this Contract, it is a condition precedent to the attainment of Completion of the Facilities within the Time for Completion and the Successful Completion of Guarantee Test that: 1) the Employer shall fully comply with requirements in the Technical Information by the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 58 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					Contractor; 2) the Employer shall employ only its persons, workmen or entities who are competent to perform the work assigned to them, in the case of skilled persons, who are adequately trained and experienced more than (10) years in their respective trades and who can understand the Technical Information with their literate in English and do satisfactory work; and 3) the Employer shall be accomplished the Employer's Responsibilities stipulated in GCC 10, Section-IV.	
130.	Section-IV, GCC	10	13 of 69	Employer's Responsibilities	We request HPGCL to kindly modify Appendix 6 so as to incorporate all the responsibilities as mentioned in this Clause, such as Employer's responsibility for acquiring and providing legal and physical possession of the Site and access thereto, all permits, approvals and/ or license from all local, state or national government authorities or public service undertakings and all other conditions mentioned at S. No. 10.5. Kindly confirm.	Provisions of document shall prevail.
131.	Section-IV, GCC	10.2	13 of 69	The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and	We request HPGCL to please specify date Since GCC 10.2 mentions that "The Employer	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 59 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in Appendix 6.	shall give full possession of and accord all rights of access thereto on or before the date(s) specified in Appendix -6. But there is no date mentioned in Appendix-6. Refer Appendix-6 - Scope of works and Supply by the Employer - Page 1 of 2 - SECTION-VII	prevail.
132.	Section-IV, GCC	12.3	15 of 69	The currency or currencies in which payments are made to the Contractor under this Contract shall be specified in Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, subject to the general principle that payments will be made in the currency or currencies in which the Contract Price has been stated in the Contractor's bid.	We request HPGCL to add the following new clause 12.4: In the event that the Employer fails to make any payment on its respective due date or within the period set forth in the Contract, the Employer shall pay to the Contractor interest on the amount of such delayed payment @12.60% per annum for the period of delay until payment in full, whether before or after judgment or arbitral award.	Provisions of document shall prevail.
133.	Section-IV, GCC	13.2.1	15 of 69	The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the advance payment for supply of Plant & Equipment and 110% of the advance amount for	Please kindly confirm that BG (Bank Guarantee) shall be issued only for supply completion period + 90days of claim period. Also we request HPGCL that the following	Cl.13.2 is not applicable. Refer SCC item no. 20.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 60 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Installation Services and Civil & allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, with a initial validity of up to ninety (90) days beyond the schedule date of Completion of the last facility covered under the package in accordance with GCC Clause 24. However, in case of delay in completion of the facilities, under the package, the validity of this security shall be extended by the period of such delay.	Paragraph: "However, in case of delay in completion of the facilities, under the package, the validity of this security shall be extended by the period of such delay." to be replaced with : "However, in case of delay in completion of the facilities, under the package, the validity of this security (for unadjusted advance amount) shall be extended by the period of such delay."	
134.	Section-IV, GCC	13.2.2	15 of 69	The security shall be in the form of an unconditional bank guarantee as per the proforma provided in Section VII (Forms and Procedures)- Form of Advance Payment Security. The Advance payment Security shall be reduced prorata every three (3) months after First Running Account Bill/Stage Payment under the Contract based on the value of the respective equipment/facilities received. The cumulative amount of reduction at any point of time shall not exceed seventy five percent (75%) of the advance corresponding to cumulative value of the respective equipment/Facilities supplied and	We request HPGCL to delete the lines from: "The cumulative amount of reduction .....shall be released after (90) days beyond Completion of those facilities" in view of it has been mentioned in the same clause that "reduction in the value of security for advance shall not in any way dilute the Contractor's responsibility and liabilities under the Contract"	Cl. No. 13.2 of GCC not applicable.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 61 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				received as per certificate issued by the Project Manager. The balance shall be released after ninety (90) days beyond Completion of those Facilities. It should be clearly understood that reduction in the value of security for advance shall not in any way dilute the Contractor's responsibility and liabilities under the Contract including in respect of the Facilities for which the reduction in the value of security is allowed.		
135.	Section-IV, GCC	13.3.1	16 of 69	The Contractor shall, within twenty-eight (28) days of the Notification of Award, provide securities for due performance of the Contracts for ten percent (10%) of the Contract Price of all the Contracts, with a initial validity upto ninety (90) days beyond the end of scheduled Defect Liability Period of the last equipment covered under the package..... However, in case of delay in Completion of the defect liability period, the validity of all the Contract Performance Securities shall be extended by the period of such delay.	The validity, including claim period, of Bank Guarantee(BG) shall be only from NoA to completion of Defect Liability Period + 90days. Kindly confirm.	Provisions of document shall prevail.
136.	Section-IV, GCC	15	21 of 69	COPYRIGHT 15.1 The copyright in all drawings, documents and other materials	We request HPGCL to modify the clause as below: "For the operation and maintenance of the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 62 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. The Employer shall however be free to reproduce all drawings, documents and other material furnished to the Employer for the purpose of the contract including, if required, for operation and maintenance of the facilities.	Facilities by the Employer, the Contractor shall grant a non-exclusive and non-transferable license (without the right to sub-license) to the Employer in respect of any relevant patents, utility models or other intellectual property rights owned by the Contractor or by a third party from whom the Contractor has received the right to grant sub-licenses and shall also grant to the Employer a non-exclusive and non-transferable right (without the right to sub-license) to use the know-how and other technical information disclosed to the Employer under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual property right from the Contractor or any third party to the Employer.”	
137.	Section-IV, GCC	17.2.1	22 of 69	The Contractor shall appoint the Contractor's Representative within fourteen (14) days of the Effective Date or before start of work whichever is earlier and shall request the Employer in writing to approve the person so appointed.	Please modify the clause as follows: The Contractor shall appoint the Contractor's Representative within fourteen (14) days of the Effective Date or before start of work whichever is earlier and shall request notify the Employer in writing to approve the person so appointed .	Provisions of document shall prevail.
138.	Section-IV, GCC	19.1	26 of 69	Subcontracting Appendix 5 (List of Approved	Due to tight project schedules, we request HPGCL that the Employer shall provide approval of the proposed sub-contractor within 14 days of	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 63 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				Subcontractors) to the Contract agreement specifies major items of supply or services.....	the submission. In case Contractor does not receive approval from Employer or the Employer does not notify the Contractor in writing reasons of not approving the proposed vendor within 14 days then it shall be Deemed approved. Also such approvals shall be required for only vendors for which order values are more than INR 10 Cr. Kindly confirm.	prevail.
139.	Section-IV, GCC	20.3.2	27 of 69	Within twenty one (21) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes.	We request HPGCL to modify the clause as below: Within twenty one (21) Fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes. In case the Project Manager does not provide any response within 14 days then the document shall be deemed approved.	Provisions of document shall prevail.
140.	Section-IV, GCC	24.6	37 of 69	'If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days	'We request HPGCL to modify the clause as below: 'If the Project Manager fails to issue the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 64 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be.	Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be. All contractual condition linked with Completion of Facilities shall become effective.	
141.	Section-IV, GCC	24.7	37 of 69	'As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.	'We request HPGCL to modify the clause as below: 'As soon as possible after Completion Operational Acceptance, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.	Provisions of document shall prevail.
142.	Section-IV,	25.2.2	38 of 69	'If for reasons attributable to the Employer, the Performance Guarantee	We request HPGCL to modify the clause as	Provisions of document shall

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 65 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
	GCC			Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of twelve months from the date of Completion of respective facility, the payment towards Successful Completion of Performance Guarantee Test, shall be released to the Contractor against Bank Guarantee. Such Bank Guarantee shall have initial validity of one (1) year. The Bank Guarantee shall be extended for any subsequent period, if required, such that the same remains valid till the Successful Completion of Performance Guarantee Test.	below: 'If for reasons attributable to the Employer, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of 3 months from the date of Completion of respective facility, the payment towards Successful Completion of Guarantee Test, shall be released to the Contractor.	prevail.
143.	Section-IV, GCC	27	40 of 69	'Defect Liability	We request HPGCL to kindly consider definition of "Defect" applicable for Defect Liability Period as below: "The term "Defect" in this Article means any material non-conformance with the design, material and workmanship requirements set forth in the specifications contained in the Contract."	Provisions of document shall prevail.
144.	Section-IV, GCC	27.1	40 of 69	'The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant and Equipment supplied and of the work	We request HPGCL to modify the clause as below: The Contractor warrants that the Facilities or any part thereof shall be in accordance with the	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 66 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				executed.	specification in the Contract	
145.	Section-IV, GCC	27.2 Para 2	40 of 69	'.....The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the following causes: (a) improper operation or maintenance of the Facilities by the Employer (b) operation of the Facilities outside specifications provided in the Contract (c) normal wear and tear	Followings should be added after (c). (d) any acts or omissions of the Employer, its employees, agents, and/or contractors, including but not limited to any nonconformance to requirements in the Technical Information by the Contractor and/or LICENSOR. (e) any other act or omission by a party not acting on behalf of the Contractor; (f) erosion or corrosion, not attributable to the Contractor's specification as to material; (g) the insufficiency or lack of any consumable resource necessary for the operation or use of the Plant and Equipment; or (h) being used in combination with other equipment not provided by the Contractor.	Provisions of document shall prevail.
146.	Section-IV, GCC	27.2	40 of 69	'The Defect Liability Period shall be eighteen (18)	We request HPGCL to add the following at the end of the clause: "The warranties provided herein shall be the sole and exclusive warranties, in lieu of all other warranties of any kind, whether statutory,	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 67 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					express, or implied, including all implied warranties or merchantability and fitness for a particular purpose or whatsoever."	
147.	Section-IV, GCC	27.8	41 of 69	'If the Facilities or any part thereof cannot be used for reason of such defect.....or any part thereof.	We request HPGCL to add the following at the end of the clause: "However the Defect Liability Period in case of repair / replacement shall not exceed 30 months from Commissioning or 24 months from Operational Acceptance of the Facilities or relevant part thereof whichever occurs first."	Provisions of document shall prevail.
148.	Section-IV, GCC	27.8.1	41 of 69	'At the end of the Defect Liability Period, the contractor liability ceases except for latent defects. The contractor's liability for latent defects warranty for the plant and equipment including spares shall be limited to a period of five (5) years from the end of Defect Liability Period of the respective plant and equipment including spares. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period as defined in this GCC clause 27, but later.	We request HPGCL to remove Latent Defect warranty requirement for the project. Kindly confirm	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 68 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
149.	Section-IV, GCC	'27.10	42 of 69	'In addition, the Contractor shall also provide an extended warranty for any such component of the Facilities and during the period of time as may be specified in the SCC. Such obligation shall be in addition to the defect liability specified under GCC Sub-Clause 27.2.	We request HPGCL to kindly delete the clause.	Provisions of document shall prevail.. However, nothing has been specified in SCC in this regard..
150.	Section-IV, GCC	28.2 & 28.3		28.2 'If, for reasons attributable to the Contractor, the guaranteed level of the Functional Guarantees specified in Appendix 8 (Functional Guarantees) to the Contract Agreement are not met either in whole or in part, the Contractor shall, within a mutually agreed time, at its cost and expense make such changes, modifications and/or additions to the Plant or any part thereof as may be necessary to meet such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications and/or additions, and shall seek the Employer's consent to repeat the Performance Guarantee Test. If the specified Functional Guarantees are not established even during the repeat of the Performance Guarantee Test, the Employer may at its option, either (a) Reject the Equipment and recover the payments already	Please clarify these clauses shall be applicable if the functional guarantees are below /beyond the levels mentioned for the levy of Liquidated Damages. Kindly confirm.	Provisions of document is amply clear.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 69 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
		<p>made, or (b) Terminate the Contract pursuant to GCC Sub-Clause 42.2.2 and recover the payments already made, or</p> <p>(c) Accept the equipment after levy of liquidated damages in accordance with the provisions specified in Appendix-8 (Functional Guarantees) to the Contract Agreement.</p> <p>28.3 In case the Employer exercises its option to accept the equipment after levy of liquidated damages, the payment of liquidated damages under GCC Sub-Clause 28.2, up to the limitation of liability specified in the Appendix-8 (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 28.2, and the Contractor shall have no further liability whatsoever to the</p> <p>Employer in respect thereof. Upon the payment of such liquidated</p> <p>damages by the Contractor, the Project Manager shall issue the</p> <p>Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated damages</p>		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 70 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				have been so paid.		
151.	Section-IV, GCC	30.1 (a)	44 of 69	Except in cases of criminal negligence or willful misconduct, a) neither Party shall be liable to the other Party, whether in Contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profit or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and	We request HPGCL to modify the clause as below: Notwithstanding anything to the contrary provided in this Contract and to the extent permitted by applicable laws, Eexcept in cases of criminal negligence or willful misconduct,.....	Provisions of document shall prevail.
152.	Section-IV, GCC	30.1 (b)	44 of 69	'the aggregate liability of the either party to the other party, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.	We understand that the Limitation of total Liability of the DJU Partner(s) (other than Contractor) to the Employer shall be limited to the Liability amount specified in the respective Deed of Joint Undertaking(s). Kindly confirm.	Provisions of document is amply clear.
153.	Section-IV, GCC	33.1	47 of 69	'Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Employer.....with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their	We request HPGCL to modify the clause as below: 'Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Employer.....with the supply and installation of the Facilities and by reason of the gross	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				employees,.....officers or agents.	negligence or willful misconduct of the Contractor or its Subcontractors, or their employees,.....officers or agents.	
154.	Section-IV, GCC	34.5	49 of 69	The Employer shall at its expense take out and maintain in effect during the performance of the Contract those insurance specified in Appendix 3 (Insurance Requirement) to the Contract Agreement.	We request HPGCL to add the following at the end of the clause: "The Contractor and the Sub-contractors shall be named as co-insureds under all such policies. All insurers' rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies. The Employer shall deliver to the Contractor satisfactory evidence that the required insurances are in full force and effect. The policies shall provide that not less than twenty-one (21) days' notice shall be given to the Contractor by all insurers prior to any cancellation or material modification of the policies."	Provisions of document shall prevail.
155.	Section-IV, GCC	36	52 of 69	'If, after the date seven (7) days prior to the deadline set for Price Bid Submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in	We request HPGCL to delete the lines from end of line 9 "However, these adjustments..... Appendix 2 to the Contract Agreement."	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 72 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
		<p>interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. However, these adjustments would be restricted to items in respect of both direct transactions between the Employer and Contractor and bought out items (to be dispatched directly from the sub-vendors works to HPGCL site). These adjustments shall not be applicable on procurement of raw materials, intermediary components and intermediary services etc. by the Contractor. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with Appendix 2 to the Contract Agreement.</p>		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 73 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
156.	Section-IV, GCC	37.1	52 of 69	"Force Majeure" shall mean any event beyond the resonable control of the Employer or of the Contractor, as the case may be, and which is unavoidable notwithstanding the resonable care of the party affected.	<p>We request HPGCL to modify the clause as below:</p> <p>"Force Majeure" shall mean any event beyond the resonable control of the Employer or all the Contractor, as the case may be, and which is unavoidable notwithstanding the resonable care of the party affected and shall include, without limitation the following:</p> <p>(a) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local, state or national government authority; or</p> <p>(b) strike, sabotage, lock-out, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine, plague; or</p> <p>(c) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 74 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					disaster; or (d) shortage of labor, materials or utilities where caused by circumstances that are themselves Force Majeure."	
157.	Section-IV, GCC	37.6	53 of 69	'If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with GCC Clause 6.	'We request HPGCL to modify the clause as below: 'If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute shall be resolved in accordance with GCC Clause 6 either party may terminate the Contract by giving a notice to the other, but without prejudice to either party's right to terminate the Contract.	Provisions of document shall prevail.
158.	Section-IV, GCC	38.3 (b) & (c)	53 of 69	'(b) replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged so far as may be required by the Employer, and as may be necessary for completion of the Facilities.	'We request HPGCL to modify the sub-clauses as below: '(b) replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged so far as may be required	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				(c) replacing or making good any such destruction or damage to the Facilities or the Plant and Equipment or any part thereof.	by the Employer, and as may be necessary for completion of the Facilities. (c) so far as may be required by the Employer, and as may be necessary for completion of the Facilities, replacing or making good any such destruction or damage to the Facilities or the Plant and Equipment or any part thereof.	
159.	Section-IV, GCC	38.5	54 of 69	'If during the performance of the Contract any War Risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personal engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities becomes impossible or is substantially prevented for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of any War Risk, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute will be resolved in accordance	'We request HPGCL to modify the clause as below: If during the performance of the Contract any War Risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personal engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities becomes impossible or is substantially prevented for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of any War Risk, the parties will attempt to develop a mutually satisfactory solution, failing which the dispute will be resolved in accordance with GCC Clause 6 <u>either party may terminate</u>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 76 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				with GCC Clause 6.	<u>the Contract by giving a notice to the other, but without prejudice to either party's right to terminate the Contract.</u>	
160.	Section-IV, GCC	38.6	54 of 69	'In the event of termination pursuant to GCC Sub-clause 38.3, the rights and obligations of the Employer and the Contractor shall be.....in respect of any unexecuted Facilities as of the date of termination.	'We request HPGCL to modify the clause as below: 'In the event of termination pursuant to GCC Sub-clause 38.3 or 38.5, the rights and obligations of the Employer and the Contractor shall be.....in respect of any unexecuted Facilities as of the date of termination.	Provisions of document shall prevail.
161.	Section-IV, GCC	39.1.2	55 of 69	'The Contractor may from time to time during its performance of the Contract propose to the Employer (with a copy to the Project Manager) any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Facilities. The Employer may at its discretion approve or reject any Chnage proposed by the Contractor.	'We request HPGCL to modify the clause as below: 'The Contractor may from time to time during its performance of the Contract propose to the Employer (with a copy to the Project Manager) any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Facilities <u>or which is necessitated by reason of any act, omission or breach of the Contract by the Employer or its contractors of any tier.</u> The Employer may at its discretion approve or reject any Change proposed by the Contractor .	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
162.	Section-IV, GCC	39.2.5	55 of 69	<p>'If the Employer and the Contractor can not reach agreemeent.....change by issue of a "Pending Agreement Change Order".</p> <p>Upon receipt of a "Pending Agreement Change Order" .....outstanding issue under the Change Proposal.</p> <p>If the parties can not reach agreement within sixty (60) days.....Expert Setteltment Council (ESC) in accordance with the provisions of GCC Sub-clause 6.2.</p>	<p>'We request HPGCL to modify the clause as beow:</p> <p>"The Contractor is not required to perform the Change until the valuation of the Change and any adjustment to the Time for Completion and other modifications to the Contract have been agreed or determined under Article 39."</p>	<p>Please refer to the amendment issued to this clause.</p>
163.	Section-IV, GCC	40.1 (e) & (f)	57 of 69	<p>'e) any default or breach of the Contract by the Employer, specifically including failure to supply the items listed in Appendix 6 (Scope of Works and Supply by the Employer) to the Contract Agreement, or any activity, act or omission of any other contractors employed by the Employer or failure to give possession of site under GCC Clause 10.2</p> <p>f) any other matter specifically mentioned in the Contract.</p>	<p>We request HPGCL to also provide cost compensation along with time extension in case of sub-clause (e) and (f) also. Kindly confirm.</p>	<p>Provisions of document shall prevail.</p>
164.	Section-IV, GCC	42.1.3	61 of 69	<p>'In the event of termination of the Contract under GCC Sub-clause 42.1.1,</p>	<p>We request HPGCL to add the following clause at the end</p>	<p>Provisions of document shall</p>

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 78 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				the Employer shall pay to the Contractor the following amounts:	Upon such termination the advance payment security, performance security of the Contractor shall be released and returned by the Employer to the Contractor and the Contractor shall be fully and finally released from any performance guarantees and warranties.	prevail.
165.	Section-IV, GCC	42.2.3 (e)	63 of 69	'deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.	We request HPGCL to modify the Clause as below: "deliver to the Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities."	Provisions of document shall prevail.
166.	Section-IV, GCC	43	66 of 69	Assignment The Contractor shall not, without the express prior written consent of the Employer, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder, except that the Contractor shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract.	We request HPGCL that as per international practice, the Employer also shall not without the express prior written consent of the Contractor, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder. Kindly confirm.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 79 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
167.	Section-IV, GCC	48	68 of 69	<p>Performance Bank Guarantee</p> <p>Firm shall furnish a Performance Bank Guarantee to HPGCL on prescribed format of HPGCL for an amount of 10% of contract value</p> <p>(Total of First, Second and Third contracts, as applicable) from any of the scheduled nationalized banks acceptable to HPGCL. The performance Bank Guarantee shall remain in force beyond three months after the successful completion of defect liability of the contract period or till the settlement of dispute covered under the Risk Purchase Clause whichever is later. The contract Performance Bank Guarantee furnished by firm is irrevocable, non-transferable & unconditional and HPGCL shall have the right to invoke it notwithstanding any dispute or difference between firm and HPGCL pending before any court tribunal, arbitrator or any other authority.</p>	<p>We request HPGCL to kindly modify the clause as below:</p> <p>Firm shall furnish a Performance Bank Guarantee to HPGCL on prescribed format of HPGCL for an amount of 10% of contract value</p> <p>(Total of First, Second and Third contracts, as applicable) from any of the scheduled nationalized banks acceptable to HPGCL. The performance Bank Guarantee shall remain in force beyond three months after the successful completion of defect liability of the contract period or till the settlement of dispute covered under the Risk Purchase Clause whichever is later. The contract Performance Bank Guarantee furnished by firm is irrevocable, non-transferable & unconditional and HPGCL shall have the right to invoke it notwithstanding any dispute or difference between firm and HPGCL pending before any court tribunal, arbitrator or any other authority.</p>	Provisions of document shall prevail.
168.	Section-IV, GCC	49	68 of 69	<p>Obligation of Firm</p> <p>The firm shall abide by all general regulations enforced at site and to any special conditions notified by the local</p>	We request HPGCL to kindly delete the clause.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 80 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				administration and / or issued by Chief Engineer of respective Power Plants. The firm shall be fully responsible for the conduct of its employees. Any act of misbehavior / man-handling / theft on part of the firm's employees shall be reckoned as breach of contract.		
169.	Section-IV, GCC	50	68 of 69	'Penalty Clause The supplier shall still remain liable to pay penalty @ 0.5% per week or part thereof of the value of the goods delayed where the part supply is acceptable and of the contract value where part supply is not acceptable, subject to a maximum of 5% of the contract value. In case of work orders, unless specified otherwise, the rate of penalty shall be @1% of the contract value per week or part thereof subject to a maximum of 10% of the contract value. A clause of this effect shall be duly incorporated in the terms and conditions of the contract	Considering Clause 4 of SCC which specifies Liquidated Damages for delay, we request HPGCL to delete this clause. Kindly confirm.	Clause deleted. Please refer amendment issued in this regard.
170.	Section-IV, GCC	51	68 of 69	Supplier's Default Liability In the event of breach of any of the terms of the Contract/Purchase Order by the supplier, the Corporation shall	We request HPGCL to kindly delete the clause.	Clause has been deleted. Please refer amendment issued in this

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 81 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				reserve the right to terminate the contract without notice to the supplier at any stage and the supplier shall have no claim what-so-ever on the corporation on this account. But the supplier shall be made liable to pay to the Corporation a sum equivalent to 5% of the value of the undelivered material as liquidated damages and not as penalty. The supplier shall in addition and without prejudice to the above said damages be required to make good any other loss or damage that may be incurred by the Corporation on making risk purchase in terms of 'Risk Purchase Clause'.		regard.
171.	Section-IV, GCC	52	69 of 69	<p>No Claim for interest or damage</p> <p>Interest on money due to the contractor:</p> <p>No omission on the part of the Employer to pay the amount due upon measurement or otherwise shall vitiate or make void the contract, nor shall the contractor be entitled to interest upon any guarantee/security/retention money or payments in arrears nor</p> <p>upon any balance which may on the final settlement of his account be due to him.</p>	We request HPGCL to kindly delete the clause.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 82 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				<p>No claim for interest or damage:</p> <p>No claim for interest or damage will be entertained or be payable by the Employer in respect of any amount or balance which may be lying with the Employer or may become due upon settlement/adjudication of any dispute, difference or misunderstanding between the parties by way of arbitration or court proceedings or otherwise or in respect of any delay or omission on the part of the Employer in making intermediate or final payment or in respect of any amount/damage which may be claimed through arbitration or court proceedings or in any other respect whatsoever</p>		
172.	Section-V, SCC	3 Time for Commencement and Completion (GCC Clause 8) GCC 8.2	1 of 2	<p>'Time for Completion:</p> <p>Completion of facilities for first Unit and common facilities shall be attained within 27 months from the date of Notification of Award. The activities specific to subsequent Unit shall be phased at an interval of 3 months, except for engineering activities which shall be completed along with the first unit.</p>	<p>We request HPGCL to kindly consider 30 months for Completion of facilities for first Unit and common facilities from the date of Notification of Award. The activities specific to subsequent Unit shall be phased at an interval of 3 months, except for engineering activities which shall be completed along with the first unit.</p> <p>Kindly confirm. Accordingly request you to kindly modify the Work Schedule at Clause 9.1 of section-III (BDS).</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 83 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
173.	Section-V, SCC	4 Completion Time Guarantee (GC Clause 26) GCC 26.2	1 of 2	<p>'a) Liquidated Damages for delay in successful Completion of Facilities shall be as under:</p> <p>If the contractor fails to achieve the successful Completion of Facilities within the agreed work schedule, the Contractor shall pay to the Employer as liquidated damages and not as penalty, a sum calculated at the following rates:</p> <p>One percent (1%) of the contract value (excluding cost of mandatory spares) for each week of delay or part thereof.</p> <p>b) The liquidated damages for delay in supply of spares beyond the dates stipulated under the Contract shall be as follows:</p> <p>One percent (1%) of Ex-works (India) price of undelivered spares, per week or part thereof of delay subject to maximum of Ten percent (10%) of the total Ex-works of all spares included in the scope of work of the contractor under the contract.</p>	<p>We request HPGCL to kindly modify the clause as below:</p> <p>'a) Liquidated Damages for delay in successful Completion of Facilities shall be as under:</p> <p>If the contractor fails to achieve the successful Completion of Facilities within the agreed work schedule, the Contractor shall pay to the Employer as liquidated damages and not as penalty, a sum calculated at the following rates:</p> <p>Half One percent (0.5% 1%) of the contract value (excluding cost of mandatory spares & taxes & Duties) for each week of delay or part thereof (Unit wise).</p> <p>b) The liquidated damages for delay in supply of spares beyond the dates stipulated under the Contract shall be as follows:</p> <p>Half One percent (0.5% 1%) of Ex-works (India) price of undelivered spares, per week or part thereof of delay subject to maximum of Five Ten percent (5% 10%) of the total Ex-works of all spares included in the scope of work of the contractor under the contract.</p>	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 84 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				(c) The total amount of liquidated damages for delay under the contract will be subject to a maximum of Ten percent (10%) of the total Contract Price [total of First / Second Contract & Third Contact (as applicable)].	(c) The total amount of liquidated damages for delay under the contract will be subject to a maximum of Five Ten percent (5% 10%) of the total Contract Price [total of First / Second Contract & Third Contact (as applicable)].	
174.	Section-V, SCC	20 (GCC Clause 13.2)	2 of 2	'Advance payment security - Not applicable	We request HPGCL to kindly provide 10% of the Total Contract Price as advance on submission of equivalent advance bank guarantee. Therefore we request HPGCL to kindly retain GCC clause 13.2 and also consider our query against the GCC clause as mentioned above. Kindly confirm.	Provisions of document shall prevail.
175.	Section-V, SCC	20 (GCC Clause 13.3.3)	2 of 2	The Provisions regarding reduction in Performance Security(ies) is not applicable	We request HPGCL that values of Contract Performance Securities furnished by main Contractor shall be reduced proportionately of the original values on expiry of Ninety (90) days after actual completion of defect liability period of all facilities relating to each one Unit.	Provisions of document shall prevail.
176.	Invitation for Bids (IFB)	3	1 of 9	Brief Scope of Work Design, engineering, manufacture, shop fabrication, preassembly, shop testing/ type testing at manufacturer's works, packing, transportation, unloading, handling and conservation of equipment at site, complete services of construction including erection, supervision, pre-	We will like to bring to HPGCL notice that MHPS is one of the largest FGD OEM world wide. However FGD O&M is not core business of MHPS and MHPS has no experience in FGD O&M. We therefore request HPGCL to kindly remove O&M from the scope of this tender. Kindly confirm.	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 85 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				commissioning, commissioning and performance testing of equipment under bidder's scope of work of FGD System, Limestone handling, storage, crushing and Gypsum handling & storage, low height wet chimney and its auxiliaries including all associated Electrical, Control & Instrumentation, Civil, Structural and Architecture works. The scope shall cover comprehensive operation & maintenance of FGD system for a period of two (02) Years.		
177.	SECTION VI (Part A)	1.2.00	67 of 224	<p>Works Services for Comprehensive Operation & Maintenance:</p> <p>1.12.01: Bidder has to mandatorily undertake a comprehensive Operation and Maintenance (O&M) for FGD system installed by bidder including supply of spares and consumables required for O&M services with an annual availability of more than 95% from the date of Taking Over of the plant by Owner after completion of initial operation up to two (02) years (definition of initial operation as defined in Part-C of the specification). Bidder must comply for O & M for two (02) years with specified payment philosophy. O & M including the following will be in bidder's</p>		Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 86 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
				scope. 1. Supply of all spares from OEM vendors for two (02) years. 2. Operation & Maintenance staff including O&M supervision staff and labour required for two (02) years.		
178.	Section-VI	3.00.00 Note (iii)	6 of 16	Contractor's aggregate liability to pay liquidated damages (LD) for failure to attain the functional guarantee shall not exceed twenty five percent (25%) of the Contract Price.	We proposed Contractor's aggregate liability to pay LD for failure to attend functional guarantee shall not exceed 15% of the Contract Price. Kindly confirm.	Provisions of document shall prevail.
179.	SECTION-VII BOOK 1 of 3	Attachment 3B (F)	2 of 3	i) Bank Guarantee Limits ii) Overdraft Limits/Cash Credit Limits iii) Deferred Payment Limits	As Qualification Requirement does not specify any line of credit values for the Bidder as well as the Associate, we request HPGCL to kindly clarify the requirement as per Attachment-3B.	Provisions of document shall prevail.
180.	Section-VII (Part 3 of 3)	Appendix - 1	1 of 18	TERMS OF PAYMENT (A1) FOR FOB price Component of Plant and Equipment (excluding Mandatory Spares and Type Test): (B1) FOR Ex-works Price component of Plant and Equipment (excludig	We will like to bring to HPGCL 's notice that current payment terms, without any advance payment and without any payment against dispatch of equipments, will lead to highly negative cash flows for the Contractor and therefore will be detrimental to the execution of the project. We therefore request HPGCL to kindly modify payment terms in line with contemporary FGD tenders and essentially	Provisions of document shall prevail.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 87 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
		<p>Mandatory Spares and Type Test):</p> <p>(C) Schedule 1, 2 7 6: Payment Terms for Mandatory Spares and Recommended Spares (When ordered)</p> <p>(E) Schedule No. 4: Installation Services</p>	<p>incorporate the following:</p> <p>1) For Supplies (CIF & Ex-works): 10% of Total Contract Price as interest free advance on placement of LOA against submission of equivalent Bank Guarantee by the contractor. 55% of Payments against dispatch of equipments. 25% of Supplies payment against receipt of material at Site. 5% of Supplies payment against successful Completion of Facilities (Unit wise). 5% of Supplies payment against successful completion of Performance Guarantee Test (Unit wise)</p> <p>3) For Installation Services(Erection Portion / Civil Works Portion & Structural works portion including cost of materials, fabrication & erection): 10% of Total Contract Price as interest free advance on placement of LOA against submission of equivalent Bank Guarantee by the contractor. 80% of Payments shall be paid progressively. 5% of Installation Services (Erection// Civil Works & Structural works) payment against successful Completion of Facilities (Unit wise). 5% of Installation Services (Erection Portion/ Civil Works & Structural works) payment against successful completion of Performance Guarantee Test (Unit wise)</p>	

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 88 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference			Specification Requirement	Bidder's Query	HPGCL REPLY
					4) Mandatory Spares: 10% of Total Contract Price as interest free advance on placement of LAO against submission of equivalent Bank Guarantee. 70% of Mandatory Spares Price on dispatch of Spares. 20% of Mandatory Spares Price , along with 100% of applicable Taxes & Duties, on receipt of spares at Site. Kindly confirm	
181.	Section-VII (Part 3 of 3)	16		Form of Bank Guarantee Check List	Kindly confirm that BG issued outside India and advised by Advising Bank (branch of issue Bank in India) will be acceptable.	Acceptable.
182.	Section-VII (Part 3 of 3)	Form of Contract Agreement		The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract: (a) This Contract Agreement and the Appendices hereto (b) Notification of Award (c) Special Conditions of Contract (d) General Conditions of Contract (e) Technical Specifications and Drawings (f) The Bid and Price Schedules	List of Minutes of Meetings and agreed deviations shall be part of Contract Documents and it shall supersede SCC. Kindly confirm.	Post bid MOMs, if any, shall form a part of NOA. Please refer para 1.2, Article 1 of form of contract agreement regarding the order of preference of the documents.

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 89 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
 RGTPP, HISAR (2X600 MW)
 CLARIFICATION NO. **5/CE/PLG/NTPC/RGTPP/FGD-250- Clrf.-01**

S.N	Specification Reference	Specification Requirement	Bidder's Query	HPGCL REPLY
		submitted by the Contractor (g) Procedures (as listed) (h) Integrity Pact (IP) signed between the Employer and the Bidder/Contractor		

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE	Clarification No-01 DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250-Clrf-01	Page 90 of 90
RGTPP, HISAR (2X600 MW)		
BIDDING DOCUMENT NO.: 5/CE/PLG/NTPC/RGTPP/FGD-250		

AMENDMENT NO. 2 TO TECHNICAL SPECIFICATION

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS	REASON
	SEC/PART	SUB-SEC.	PAGE NO.	CLAUSE NO.			
STEAM GENERATOR (SG)							
1.	VI/A	V	3 of 13	2.01.02	Single-flue or twin-flue chimney shall be provided. The flue gas emission point above the plant grade level shall be as per the salient design data for the respective projects as indicated in the previous clauses.	Single-flue or twin-flue chimney shall be provided away from the absorber tower. Chimney at the top of the absorber tower is not permitted. The flue gas emission point above the plant grade level shall be as per the salient design data as indicated in the previous clause.	For clarity based on the bidder's query.
2.	VI/E	Tender Drawing 9944-250-POM-A-001			Scheme of Absorber System	Instrumentation TT, FS & TS in both the streams of Seal Air System for FGD Bypass Damper is deleted.	Deleted based on the bidder's query.
PLANT UTILITIES (PU)							
3.	VI/B	I-M3	5 of 6	9.01.06	<p>The following indications shall be made available in the control panels for repeating the same in main plant Control System / Panels.</p> <p>(a) Status of each compressor</p> <p>(b) Instrument air pressure low/high</p> <p>(c) Service air pressure low/high</p> <p>(d) Dew point of instrument air</p> <p>(e) Status of each ADP</p>	<p>The following indications shall be made available in the control panels for repeating the same in FGD plant Control System / Panels.</p> <p>(a) Status of each compressor</p> <p>(b) Instrument air pressure low/high</p> <p>(c) Service air pressure low/high</p> <p>(d) Dew point of instrument air</p> <p>(e) Status of each ADP</p>	ERRATA
CIVIL							

AMENDMENT NO. 2 TO TECHNICAL SPECIFICATION

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS	REASON
	SEC/PART	SUB-SEC.	PAGE NO.	CLAUSE NO.			
4.	VI/B	IV-D	3.14.09 Para 7	13 of 68	(v) The entire external surface of chimney shell shall be painted with epoxy phenolic coating as specified in (iv) above in alternate bands of 'signal red' and 'bright white' colours.	(iv) The entire external surface of chimney shell shall be painted with epoxy phenolic coating as specified in (iii) above in alternate bands of 'signal red' and 'bright white' colours.	Minor Changes in numbering.
5.	VI/A	II-A1	17 of 29	7.02.03 xv)	High Strain Dynamic Load Test may be carried out for routine load testing of working piles. However, at least two numbers of static routine vertical load tests shall be carried out on pile on which high strain dynamic load test has already been carried out for establishing the correlation between the two tests. In case of discrepancy if any between dynamic and static vertical load tests, then additional static routine vertical load tests shall be conducted as decided by the Engineer and the results of static routine vertical load shall prevail. Number of routine vertical pile load tests as per clause 7.02.03 (ix) shall be total of static routine vertical load test and high strain dynamic load tests.	Routine pile load tests to be performed on 0.5% of the total number of piles provided for each diameter/allowable capacity. High Strain dynamic load test may be carried out for routine load testing of working piles. However, at least two numbers of static routine vertical load tests shall be carried out on pile on which high strain dynamic load test has already been carried out for establishing the correlation between the two tests. In case of discrepancy if any between dynamic and static vertical load tests, then additional static routine vertical load tests shall be conducted as decided by the Engineer and the results of static routine vertical load shall prevail. Number of routine vertical pile load tests as per clause 7.02.03 (ix) shall be total of static routine vertical load test and high strain dynamic load tests. In case agency wish to carry out only static routine vertical load test on 0.5% of total number of piles, he may adopt the same.	Based on Bidder's query
6.	VI/A	II	-	Annexure-II	-	Amendment added with clause 7.00.01, annexure-II	Available additional data along with borelog added with Foundation system and geotechnical data clause.

AMENDMENT NO. 2 TO TECHNICAL SPECIFICATION

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS	REASON
	SEC/PART	SUB-SEC.	PAGE NO.	CLAUSE NO.			
ELECTRICAL							
7.	VI/E1	Tender SLD	69/69	SLD note no.3	STANDARD LT TRANSFORMER RATING WITH THEIR IMPEDANCES ARE AS FOLLOWS: TABLE	STANDARD LT TRANSFORMER RATING WITH THEIR IMPEDANCES ARE AS FOLLOWS: REVISED TABLE IN SLD REV03 The impedance of 2.5MVA transformer will be 10%	As per system design
8.	VI/E1	Tender SLD	69/69	Slid NOTE NO.9	6.6kV/0.433kV SERVICE TRF SHALL BE OUTDOOR OIL FILLED	6.6kV/0.433kV SERVICE TRF SHALL BE OUTDOOR OIL FILLED/INDOOR DRY TYPE	As per system design

AMENDMENT NO. 2 TO TECHNICAL SPECIFICATION


S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS	REASON
	SEC/PART	SUB-SEC.	PAGE NO.	CLAUSE NO.			
9.	VI/B	E-6	11 of 23	4.04.13	<p>Separation</p> <p>At least 300mm clearance shall be provided between:</p> <ul style="list-style-type: none"> - HT power & LT power cables, - LT power & LT control/instrumentation cables, 	<p>Separation</p> <p>At least 300mm clearance shall be provided between:</p> <ul style="list-style-type: none"> - HT power & LT power cables, - LT power & LT control/instrumentation cables, <p>When vertical trays are arranged one above another, 100mm spacing shall be maintained between bottom of top and top of bottom tray. However, 300 mm spacing shall be maintained, when vertical trays are arranged side by side.</p>	Updation
10.	VI/E1	Tender SLD	69/69	-	11kV side of 400kV transformer is solidly grounded	Refer revised SLD Rev 03	Errata
11.	VI/A	IIIB	04/08	1.07.00	Bidder to provide air conditioned room to house variable frequency drive (VFD).	Bidder to provide air conditioned room to house variable frequency drive (VFD) of rating above 100kW.	Updation
12.	VI/B	E-6	22/23	9.00.00 b)1.	Separate Switchgear Rooms shall be provided for each unit.	Clause deleted.	Errata

MATERIAL HANDLING (MH)

FGD SYSTEM PACKAGE RGTPP, HISAR (2x600 MW)	AMENDMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250-AMDT-02 BID DOCUMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250	Page 4 of 5
---	---	-------------

AMENDMENT NO. 2 TO TECHNICAL SPECIFICATION

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS	REASON
	SEC/PART	SUB-SEC.	PAGE NO.	CLAUSE NO.			
13.	VI/B	I-M6	5 of 41	4.04.00	Dust Extraction system Type : Venturi scrubber type Location: Belt feeder after crusher Feeder at crusher house Limestone Storage Silo Gypsum Shed	Dust Extraction system Type: Bag Filter type Location: Truck un-loading points, Limestone/ gypsum discharge & receipt points, limestone crusher house (including belt feeder & vibrating screening feeder) and lime stone/gypsum storage Shed/Silo	To bring clarity in scope
14.	VI/A	III-A5	4 OF 7	2.01.16	Two (2) numbers of conventional enclosure type passenger cum goods elevator having capacity of 16 persons (1088 kg) complying to IS:14665 (latest edition) with drives, all electrical, mechanical, civil, structural & associated foundation works, accessories and electrical to serve various floors of limestone crusher house. Staircase access for machine room shall also be provided by the bidder.	Two (2) numbers of conventional enclosure type passenger cum goods elevator having capacity of 16 persons (1088 kg) complying to IS:14665 (latest edition) with drives, all electrical, mechanical, civil, structural & associated foundation works, accessories and electrical to serve various floors of limestone crusher house and Crushed Limestone Main Storage Silo. Staircase access for machine room shall also be provided by the bidder.	typographical error
15.	VI/E				Drawing no 9944-250-POM-A-005 Rev. 0	Drawing no 9944-250-POM-A-005 Rev. A	typographical error


SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana) Co-ordinates 2920.400 E, 8603.290 N				BH.No. 40-7 WATER TABLE : 15.35 m			TERMINATION DEPTH 40.45 m		TABLE NO. 3a JOB NO. 207018-VII		 Certificate No.T-0809		
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location :Chimney</i>	Grain Size Analysis			Atterberg Limits		Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Triaxial Test		
					Gravel %	Sand %	Silt %	Clay %	Liquid %				Plastic %	Plasticity Index %	Confining Pressure Kg/cm ²	Cohesion Kg/cm^{2}	Angle of Internal Friction
13	0.00 0.50 1.50 1.95	DS1 SPT1		Medium dense to dense light brown silty fine sand (SM) - medium dense with traces of gravel, 0.0 to 7.5m	3	79	18	0		2.63	1.66	8.1	0.5 1.0 1.5 (DS)	0	31 ^u
16	2.25 2.25 3.00 3.45	UDS1 SPT2								1.69	1.56	8.6			
19	4.50 4.95	SPT3													
21	5.25 5.55 6.00 6.45	UDS2 SPT4													
38	7.50 7.95	SPT5		- dense, 7.5 to 15.0m											
43	8.25 8.55 9.00 9.45	UDS3 SPT6								1.75	1.60	9.3	0.5 1.0 1.5 (DS)	0	35 ^u
39	10.50 10.95	SPT7													

(Cont'd on Table No.3b) * Outside NABL scope

N-Value*		Depth (m)		Sample No.		Symbol		SOIL DESCRIPTION		Location : Chimney		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana)		Co-ordinates 2920.400 E, 8603.290 N		Surface Elevation 220.164 m		Grain Size Analysis		Atterberg Limits		WATER TABLE : 15.35 m		BH.No. 40-7		TERMINATION DEPTH 40.45 m		TABLE NO. 3b JOB NO. 207018-VII		Certificate No.T-0809				
36	11.25 11.55	11.25 11.55	UDS4		Dense light brown silty fine sand (SM) - dense, 7.5 to 15.0m																													
44	12.00 12.45	12.00 12.45	SPT8 SPT9																															
48	14.25 14.55	14.25 14.55	UDS5																															
61	15.00 15.45	15.00 15.45	SPT10		Dense to very dense light brown fine sand (SP) - dense, 15.0 to 18.0m (15.0m)																													
68	17.25 17.55	17.25 17.55	DS2																															
68	18.00 18.45	18.00 18.45	SPT11																															
68	20.25 20.55	20.25 20.55	DS3																															
29	21.00 21.45	21.00 21.45	SPT12																															
29	23.25 23.55	23.25 23.55	DS4																															
29	24.00 24.45	24.00 24.45	SPT13		Very stiff light brown clayey silt, medium plastic (MI) (24.0m)																													









* Outside NABL scope

(Cont'd on Table No.3c)

SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana) Co-ordinates 2931.400 E, 8581.22 N				BH.No. 40-8 WATER TABLE : 15.25 m			TERMINATION DEPTH 40.45 m		TABLE NO. 4a JOB NO. 207018-VII		 Certificate No.T-0809 Triaxial Test		
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location :Chimney</i>	Grain Size Analysis			Atterberg Limits		Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction
					Gravel %	Sand %	Silt %	Clay %	Liquid %							Plastic %	Plasticity Index %
	0.00 1.00	DS1		Loose to dense light brown silty fine sand (SM) - loose, 0.0 to 3.0m											
9	1.50 1.95	SPT1								1.65	1.53	7.6	0.5 1.0 1.5 (DS)	0	30.1°
21	2.25 2.25	UDS1					0								
	3.00 3.45	SPT2		- medium dense, 3.0 to 7.5m											
19	4.50 4.95	SPT3								1.68	1.55	8.2			
	5.25 5.55	UDS2													
28	6.00 6.45	SPT4													
31	7.50 7.95	SPT5		- dense, 7.5 to 11.0m											
	8.25 8.55	UDS3					0	24	0	1.73	1.58	9.3	0.5 1.0 1.5 (DS)	0	34.2°
44	9.00 9.45	SPT6													
30	10.50 10.95	SPT7		(11.0m)											


* Outside NABL scope

(Cont'd on Table No.4b)

		SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana)		BH.No. 40-8		TABLE NO. 4b											
Co-ordinates 2931.400 E, 8581.22 N				Surface Elevation 220.404 m		WATER TABLE : 15.25 m		JOB NO. 207018-VII		Certificate No.T-0809									
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location :Chimney</i>	Grain Size Analysis			Atterberg Limits			Termination Depth			Triaxial Test					
					Gravel %	Sand %	Silt %	Clay %	Liquid %	Plastic %	Plasticity Index %	Specific Gravity	Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction	
	11.25 11.55	UDS4		Medium dense light brown sandy silt, low plastic (CL)															
28	12.00 12.45	SPT8			Very dense light brown silty fine sand (SM) (15.0m)														
25	13.50 13.95	SPT9																	
64	14.25 14.55	UDS5					0	32	52	16	30.7	21.3	9.4	1.79	1.60	11.8			
	15.00 15.45	SPT10																	
	17.25 17.55	UDS6																	
49	18.00 18.45	SPT11		Hard light brown clayey silt, medium plastic (MI) (18.0m)															
	20.25 20.55	UDS7																	
53	21.00 21.45	SPT12																	
	23.25 23.55	DS2																	
39	24.00 24.45	SPT13																	

(Contd on Table No.4c)






* Outside NABL scope

SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana) Co-ordinates 2906.930 E, 8582.420 N				BH.No. 40-9 WATER TABLE : 15.65 m			TERMINATION DEPTH 40.45 m		TABLE NO. 5a JOB NO. 207018-VII							
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location : Chimney</i>	Grain Size Analysis			Atterberg Limits		Specific Gravity	Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Triaxial Test				
					Gravel %	Sand %	Silt %	Clay %	Plastic %					Plasticity Index %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Intercept	Angle of Internal Friction
	0.00 0.50	DS1		Medium dense to dense light brown silty fine sand (SM) - medium dense, 0.0 to 6.0m - dense, 6.0 to 15.0m														
13	1.50 1.95	SPT1			0	79	21	0		1.67	1.55	7.9		0.5 1.0 1.5 (DS)	0			
	2.25 2.55	UDS1																
15	3.00 3.45	SPT2																
27	4.50 4.95	SPT3																
35	5.25 5.55	UDS2								2.64	1.71	1.57	8.6					33.4°
	6.00 6.45	SPT4																
32	7.50 7.95	SPT5																
	8.25 8.55	UDS3																
33	9.00 9.45	SPT6																
36	10.50 10.95	SPT7																

DS : Drained Direct Shear Test

* Outside NABL scope








(Cont'd on Table No.5b)

		<h1 style="text-align: center;">SOIL PROFILE</h1>		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana)				BH.No. 40-9		TERMINATION DEPTH		TABLE NO. 5b		 Certificate No. T-0809			
				Co-ordinates 2906.930 E, 8582.420 N		Surface Elevation 220.534 m		WATER TABLE : 15.65 m		40.45 m		JOB NO. 207018-VII					
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location : Chimney</i>	Grain Size Analysis			Atterberg Limits			Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction	
					Gravel %	Sand %	Silt %	Clay %	Liquid %	Plastic %							Plasticity Index %
	11.25 11.55	UDS4		Dense to very dense light brown silty fine sand (SM) - dense, 6.0 to 15.0m - very dense, 15.0 to 18.0m Very stiff to hard light brown clayey silt, medium plastic (MI) - very stiff, 18.0 to 21.0m - hard, 21.0 to 27.0m (18.0m)													
39	12.00 12.45	SPT8															
43	13.50 13.95	SPT9															
62	14.25 14.55	UDS5															
	15.00 15.45	SPT10															
	17.25 17.55	UDS6															
25	18.00 18.45	SPT11															
	20.25 20.55	UDS7								40.0	27.9	12.1					
39	21.00 21.45	SPT12															
	23.25 23.55	UDS8															
41	24.00 24.45	SPT13															

* Outside NABL scope

(Contd on Table No.5c)

UC : Unconfined Compression Test
DS : Drained Direct Shear Test












SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana) Co-ordinates 2906.930 E, 8582.420 N				BH.No. 40-9 WATER TABLE : 15.65 m		TERMINATION DEPTH 40.45 m		TABLE NO. 5c JOB NO. 207018-VII		 Certificate No.T-0809				
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location : Chimney</i>	Grain Size Analysis			Atterberg Limits		Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction	
					Gravel %	Sand %	Silt %	Clay %	Liquid %							Plastic %
	26.25	UDS9		Hard light brown clayey silt, medium plastic (MI) - hard, 21.0 to 27.0m (27.0m) Very dense light brown fine sand (SP)	0	14	52	34		2.14	1.77	21.0				
99	26.55	SPT14														
	27.00	UDS10														
	27.45	SPT15														
60	29.25	UDS11														
	29.55	SPT16														
	30.00	UDS12														
	30.45	SPT17														
63	32.25	UDS13														
	32.45	SPT18														
	33.00	UDS14														
	33.45	SPT19														
	35.25	UDS15														
	35.55	SPT20														
72	36.00	UDS16														
	36.45	SPT21														
	38.25	UDS17														
	36.55	SPT22														
62	39.00	UDS18														
	39.45	SPT23														
	40.00	UDS19														
	40.45	SPT24														

DS : Drained Direct Shear Test

* Outside NABL scope

SOIL PROFILE		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana) Co-ordinates 2919.520 E, 8589.080 N				BH.No. 50-01			TERMINATION DEPTH 50.45 m		TABLE NO. 6a		 Certificate No.T-0809			
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location : Chimney</i>	Grain Size Analysis				Atterberg Limits		Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction	
					Gravel %	Sand %	Silt %	Clay %	Liquid %	Plastic %						Plasticity Index %	Specific Gravity	Natural Density gms/cm^{3}
	0.00 1.00	DS1		Medium dense to dense light brown silty fine sand (SM) - medium dense, 0.0 to 7.5m - dense, 7.5 to 18.0m												
12	1.50 1.95	SPT1			0	77	23	0			1.67	1.54	8.2	0.5 1.0 1.5 (DS)	0	31 ^o
17	2.25 2.55	UDS1														
	3.00 3.45	SPT2														
30	4.50 4.95	SPT3									1.71	1.57	8.8			
	5.25 5.55	UDS2														
28	6.00 6.45	SPT4														
31	7.50 7.95	SPT5														
	8.25 8.55	UDS3														
33	9.00 9.45	SPT6									1.75	1.60	9.6	0.5 1.0 1.5 (DS)	0	35 ^o
38	10.50 10.95	SPT7														

(Cont'd on Table No. 6b) * Outside NABL scope

		<h1 style="text-align: center;">SOIL PROFILE</h1>		Project: 2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar (Haryana)				BH.No. 50-01 Cont'd		TERMINATION DEPTH		TABLE NO. 6b		 Certificate No.T-0809			
				Co-ordinates 2919.520 E, 8589.080 N		Surface Elevation 220.404 m		WATER TABLE : 15.40 m		50.45 m		JOB NO. 207018-VII					
N-Value*	Depth (m)	Sample No.	Symbol	SOIL DESCRIPTION <i>Location : Chimney</i>	Grain Size Analysis			Atterberg Limits		Specific Gravity	Natural Density gms/cm ³	Dry Density gms/cm ³	Moisture Content %	Confining Pressure Kg/cm ²	Cohesion Kg/cm ²	Angle of Internal Friction	
					Gravel %	Sand %	Silt %	Clay %	Liquid %								Plastic %	Plasticity Index %
	11.25 11.55	UDS4		SOIL DESCRIPTION <i>Location : Chimney</i> Dense to very dense light brown silty fine sand (SM) - dense, 7.5 to 18.0m - very dense, 18.0 to 21.0m - dense, 21.0 to 23.0m Hard light brown clayey silt with traces of gravel, medium plastic (MI)													
38	12.00 12.45	SPT8															
43	13.50 13.95	SPT9															
49	14.25 14.55	UDS5			0	83	17	0			1.84	1.65	11.5	0.5 1.0 1.5 (DS)	0		38 ^v
	15.00 15.45	SPT10															
64	17.25 17.55	UDS6									1.89	1.68	12.4				
	18.00 18.45	SPT11															
	20.25 20.55	UDS7															
48	21.00 21.45	SPT12															
	23.25 23.55	UDS8			2	19	51	28			2.04	1.72	18.7	0 (UC)	1.23		
53	24.00 24.45	SPT13															

* Outside NABL scope

(Cont'd on Table No.6c)

**CHEMICAL TEST RESULTS****SOIL-WATER EXTRACT :**

Location	Borehole No.	Depth, (m)	Sulphate Content (SO ₃), %	Chloride Content, %	pH Value
ESP	30(23)	15.00	0.10	0.04	8.5
	30(25)	2.25	0.11	0.01	8.4
	30(26)	21.00	0.11	0.11	7.5
	30(28)	2.25	0.10	0.01	8.5
	30(28)	26.25	0.11	0.04	7.4
T G Building	35(3)	8.25	0.11	0.01	7.7
	35(4)	1.50	0.10	0.01	7.9
	35(7)	14.25	0.10	0.03	8.4
	35(9)	2.25	0.10	0.01	7.3
	35(12)	29.25	0.10	0.03	8.3
	40(1)	1.50	0.10	0.01	8.1
ESP Control Room	20(10)	2.25	0.10	0.02	8.2

WATER

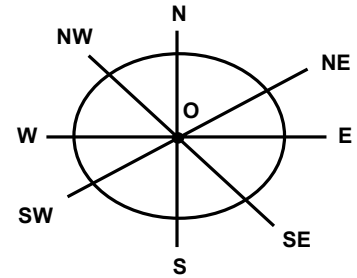
Location	Borehole No.	Sulphate Content mg/l (SO ₃)	Chloride Content, mg/l	pH Value
T G Building	35(1)	340	32	7.8
	35(4)	342	42	7.6

**2 X 600 MW Hissar Thermal Power Project at
BARWALA, Hissar (Haryana)**



ELECTRICAL RESISTIVITY TEST NO -1

Location : Power House
Co-ordinates : 2705.36 E, 8666.86 N
Reduced Level, m : 219..275



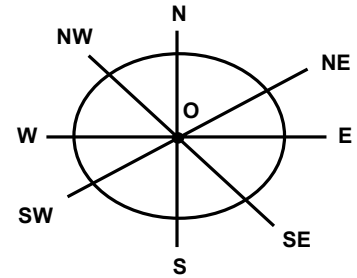
S.No.	Electrode Spacing, m	Resistivity, (ohm-m)								Average
		O-E	O-W	O-N	O-S	O-NW	O-SE	O-NE	O-SW	
1	2.0	8.7	8.5	8.5	8.5	8.5	8.5	8.4	8.3	8.5
2	5.0	13.2	13.2	12.6	12.6	12.6	12.6	12.6	12.2	12.7
3	10.0	9.4	10.0	10.0	10.0	10.0	10.7	10.0	10.0	10.0
4	15.0	7.5	6.6	6.6	6.6	7.5	7.5	8.5	7.5	7.3

2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar
(Haryana)



ELECTRICAL RESISTIVITY TEST NO - 2

Location : Power House
Co-ordinates : 2701.33 E, 8595.23 N
Reduced Level, m : 219.990



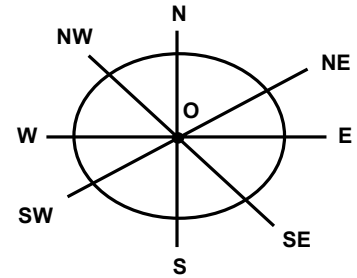
S.No.	Electrode Spacing, m	Resistivity, (ohm-m)								Average
		O-E	O-W	O-N	O-S	O-NW	O-SE	O-NE	O-SW	
1	5.0	6.3	6.0	5.7	5.3	5.3	5.0	5.7	5.3	5.6
2	10.0	8.8	8.2	8.2	7.5	8.8	8.2	7.5	7.5	8.1
3	15.0	9.4	8.5	8.5	7.5	10.4	9.4	8.5	8.5	8.8
4	20.0	10.0	10.0	10.0	8.8	11.3	10.0	8.8	8.8	9.7

2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar
(Haryana)



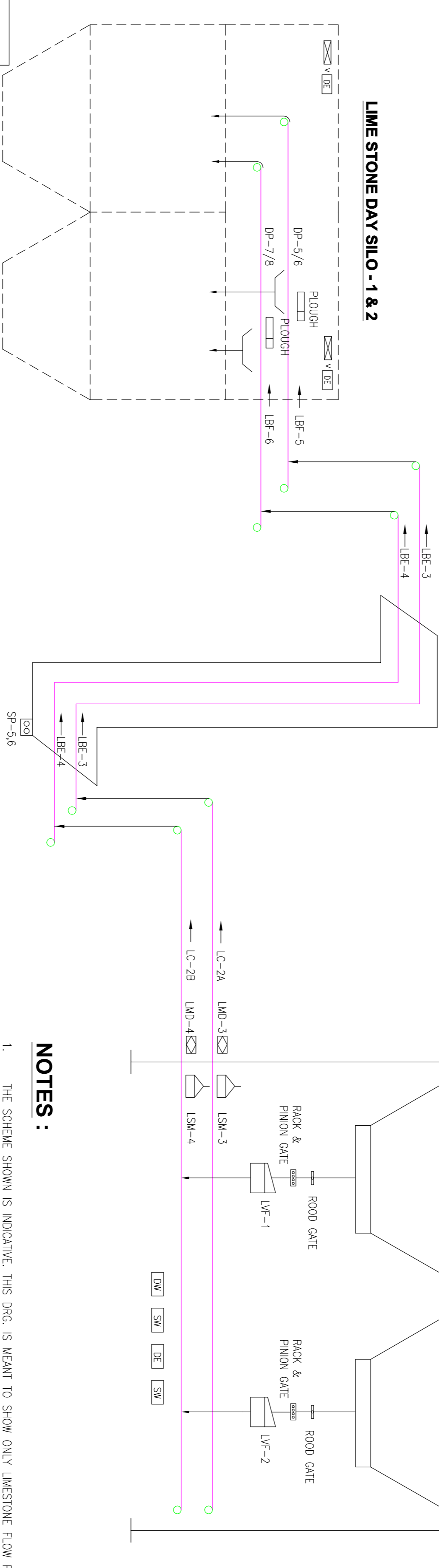
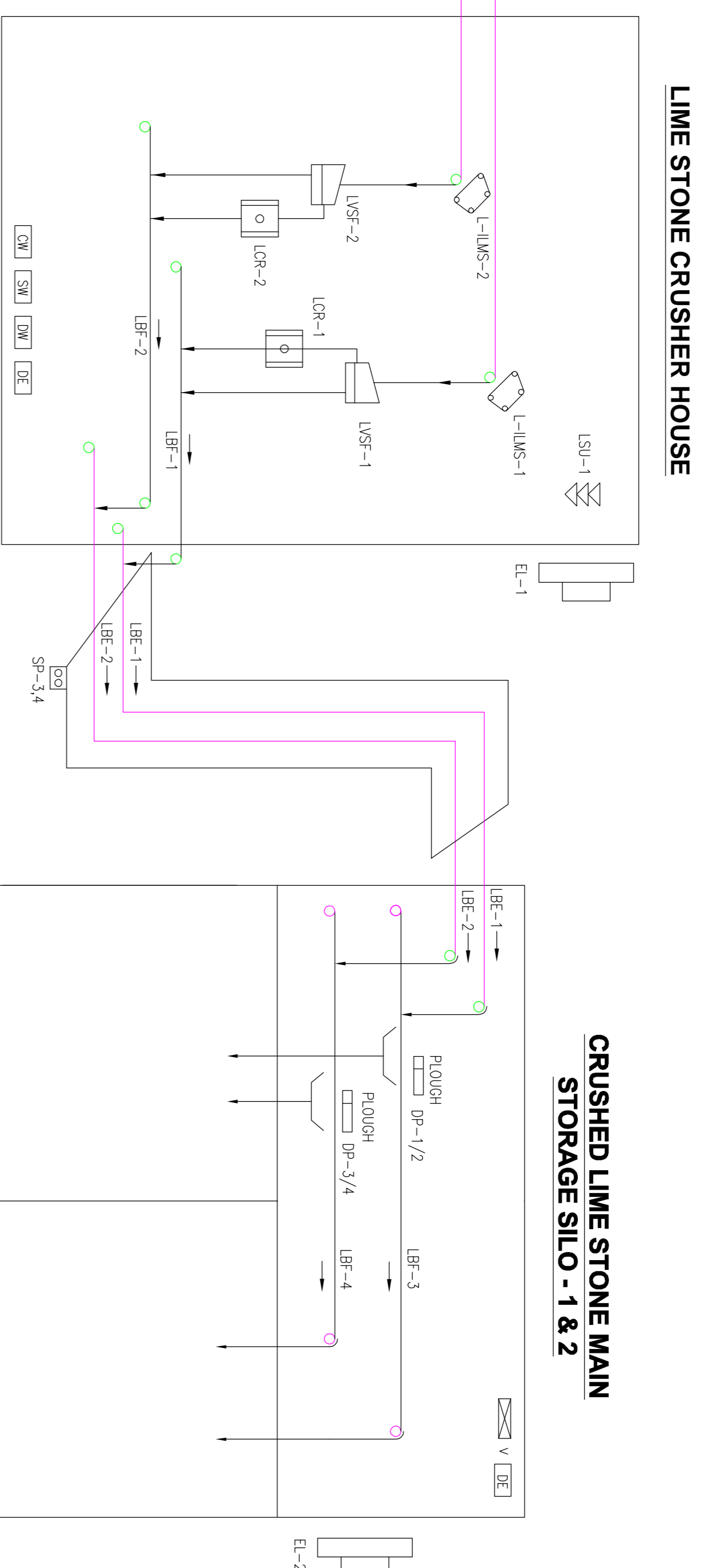
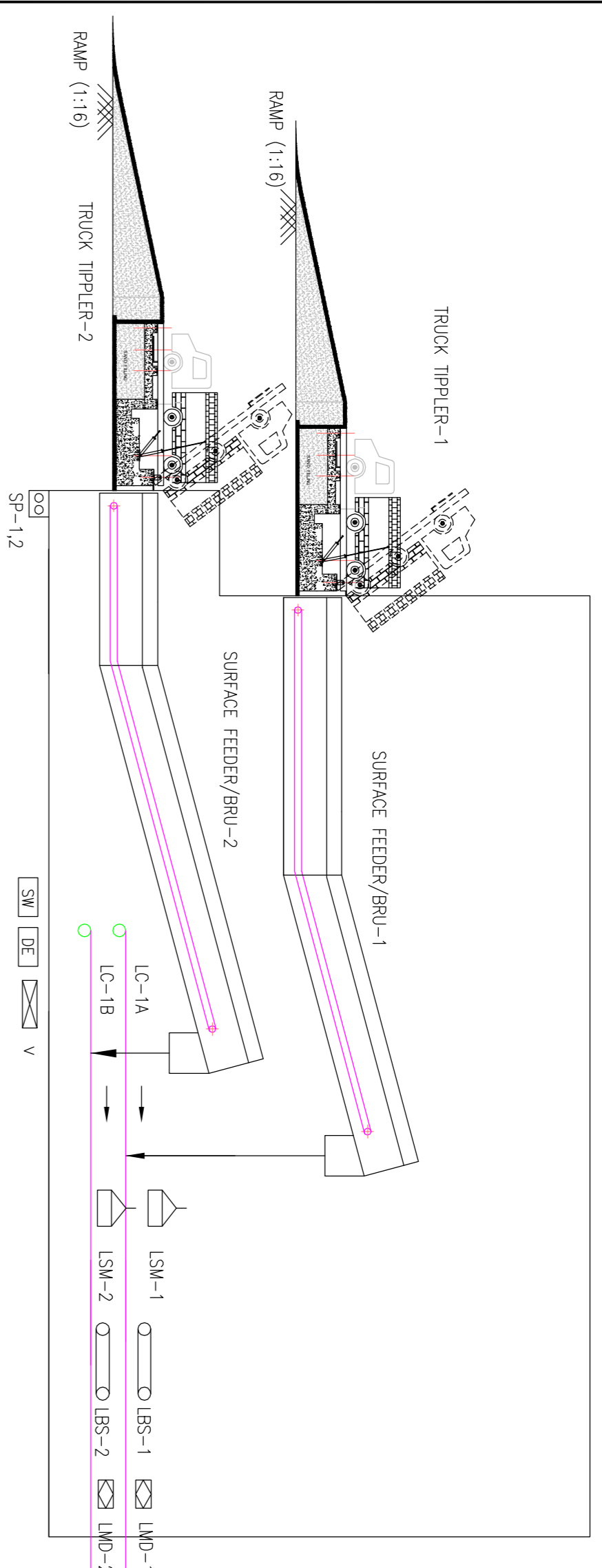
ELECTRICAL RESISTIVITY TEST NO - 3

Location : Power House
Co-ordinates : 2699.59 E, 8535.35 N
Reduced Level, m : 219.998



S.No.	Electrode Spacing, m	Resistivity, (ohm-m)								Average
		O-E	O-W	O-N	O-S	O-NW	O-SE	O-NE	O-SW	
1	2.0	2.8	2.8	2.9	2.8	2.8	2.8	3.0	2.9	2.8
2	5.0	5.0	5.0	5.0	4.7	5.0	5.3	5.3	5.0	5.1
3	10.0	8.8	8.2	9.4	8.8	8.8	9.4	10.0	10.0	9.2
4	15.0	19.8	20.7	20.7	19.8	18.8	18.8	18.8	17.9	19.4

2 X 600 MW Hissar Thermal Power Project at BARWALA, Hissar
(Haryana)



LC 1A/1B LC 2A/2B	LIMESTONE CONVEYOR	4	150 TPH RATED CAPACITY
EL	PASSENGER CUM GOODS ELEVATOR	2	CONVENTIONAL TYPE ELEVATOR
LMD - 1 to 4	LIME STONE METAL DETECTOR	4	
LSM - 1 to 4	SUSPENDED MAGNET	4	
SF	SURFACE FEEDER / BRU	2	
SP	SUMP & SUMP DRAINAGE PUMPS	6	
LOR	LIME STONE CRUSHER	2	150 TPH RATED CAPACITY
LBS	LIME STONE BELT WEIGH SCALE	2	
L-LIMS 1-2	IN LINE MAGNETIC SEPARATOR ALONG WITH TRAMP IRON CHUTE	2	
LBF-1/2 3/4/5/6/7/8/8	LIME STONE BELD FEEDER	6	150 TPH RATED CAPACITY
TRUCK TIPPLER	TRUCK TIPPLER	2	150 TPH
LBE-1/2 LBE-3/4	BUCKET ELEVATOR	4	150 TPH RATED CAPACITY

LEGEND	SYMBOL	DESCRIPTION
○	○	LIME BELT FEEDER
SW	SW	SERVICE WATER SYSTEM
DW	DW	DRINKING WATER SYSTEM
DE	DE	DRY DUST EXTRACTION SYSTEM
SP	SP	SUMP & SUMP DRAINAGE PUMPS
LC	LC	LIME STONE BELT CONVEYOR
ROD GATE	ROD GATE	ROD GATE
RACK & PINION GATE	RACK & PINION GATE	RACK & PINION GATE
LOR	LOR	LIME STONE CRUSHER
CONVENTIONAL TYPE ELEVATOR	CONVENTIONAL TYPE ELEVATOR	CONVENTIONAL TYPE ELEVATOR
LBS	LBS	LIME STONE BELT SCALE
LSU	LSU	LIME STONE SAMPLING UNIT
L-LIMS	L-LIMS	LIME STONE MAGNETIC SEPARATOR (IN LIMS)
LMD	LMD	LIME STONE METAL DETECTOR
V	V	VENTILATION
DP	DP	DIVERTER PLUM
LSM	LSM	SUSPENDED MAGNET

FOR TENDER PURPOSE ONLY

REV.	DESCRIPTION	DATE
A	RELEASED FOR TENDER	15.02.19
B	RELEASED FOR TENDER	21.03.19

OWNERS:
HARYANA POWER GENERATION CORPORATION LTD.

CONSULTANT:
NTPC (A GOVT. OF INDIA ENTERPRISE)

PROJECT:
RGTPP HISSAR (2x600 MW)

TITLE:
FGD PACKAGE
LIME STONE FLOW DIAGRAM

SCALE:
9944-250-POM-A-005

DATE:
21.03.19

- NOTES:**
- THE SCHEME SHOWN IS INDICATIVE. THIS DRG. IS MEANT TO SHOW ONLY LIMESTONE FLOW PATH AND DOES NOT INDICATE COMPREHENSIVE SCOPE OF WORK. THE BIDDER MAY PROVIDE BULK MATERIAL RECEIVING UNIT/TRUCK TIPPLER/SURFACE FEEDER/BOX FEEDER ALONG WITH TRUCK TIPPLER.
 - ALL CONVEYORS SHALL BE PROVIDED WITH ACCESSORIES SUCH AS PULL CORD, BELT SWAY AND ZERO SPEED SWITCHES, BELT WIPER UNITS, TENSIONING DEVICES ETC. ALL BUCKET ELEVATORS SHALL BE PROVIDED SUITABLE PROTECTION DEVICES AS PER TECHNICAL SPECIFICATION. THESE ARE NOT SHOWN IN THE FLOW DIAGRAM FOR CLARITY.
 - ALL ACCESSORIES, ITEMS OF WORK, THOUGH NOT INDICATED BUT REQUIRED TO MAKE THE SYSTEM COMPLETE FOR ITS SAFE, EFFICIENT, RELIABLE AND TROUBLE FREE OPERATION AND MAINTENANCE SHALL ALSO BE INCLUDED IN BIDDER'S SCOPE UNLESS SPECIFICALLY EXCLUDED.
 - SERVICE WATER, POTABLE WATER, COOLING WATER, DUST EXTRACTION & VENTILATION SHALL BE PROVIDED AS PER TECHNICAL SPECIFICATION REQUIREMENT.
 - TOTAL LIME STONE STORAGE REQUIREMENT SHALL BE ACCOMMODATED IN TWO NO. OF SILO OF IDENTICAL CAPACITY.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
1	VI/A	V	3 of 13	1.00.00 (11)	Chimney Height (m)	Whether single flue chimney at the top of the absorber can be provided?	HPGCL/NTPC clarified that single flue or twin flue chimney shall be provided away from the absorber tower. Chimney at the top of the absorber tower is not permitted.
2	VI/A	II	29 of 29	Table-4	List of Drawings	Can you please share AUTOCAD drawings mentioned in Tender Document?	AUTOCAD drawing of General Layout Plan is shared with all prospective bidders through email by HPGCL.
3	VI/A	III-A1	3/10	3.01.05	Limestone slurry piping to each absorber, along with recirculation lines, all isolation and control valves	It is recommended to use VFD drive for limestone slurring pump instead of recirculation line, which can save power. Kindly confirm.	HPGCL/NTPC clarified that VFD drive for limestone slurry pumps may be given over and above other specification requirements.
4	VI/A	III-A5	4/7	2.01.16	Two (2) number of conventional enclosure type passenger cum goods elevator	According to RFQ, there will be one elevator in crusher house and one for limestone storage silo. As per our experience, it is not necessary to set elevator for silos, ladder and stair will be enough, it is recommended to cancel it.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
5	VI/B	I-M1	6/52	3.02.04	The duct to Absorber inlet shall be made of Carbon steel of minimum 7mm thickness. The duct from Absorber outlet to the new wet flue chimney shall be made of Carbon steel of minimum 7mm thickness with 2 mm (minimum) thickness Alloy C276 / Alloy 59 or better material.	As per our engineering experience, lining of the duct from absorber outlet to the new wet flue chimney is recommended to be made of CS (minimum thickness of 6mm) with glass flake lining, which is a proven practice and has been applied in many projects. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
6	VI/B	I-M1	17/52	5.06.06	Mist Eliminator: Three stage chevron type Mist Eliminators (ME) made of Polysulfone or stainless steel shall be provided at the exit of the absorber.	As per our proven practice, Mist Eliminator will be made of polypropylene (PP) or FRP. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
7	VI/B	I-M1	17/52	5.06.06	Coarse-screen(s) of suitable material at suction-side of the pumps shall be provided.	Coarse screens are generally considered at the suction side for Slurry Recirculation slurry pumps. Suction screen inside the Absorber for Recirculation slurry pumps. All other slurry pumps are handling fine slurry only. Hence coarse screens are not envisaged for other slurry pumps and also process water pumps. Please accept.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
8	VI/B	I-M1	19/52	5.06.11	The complete absorber vessel (absorber oxidation tank, absorber tower & absorber outlet duct up to absorber outlet flange) shall be made of clad sheet of C276 / Alloy 59 (minimum 2 mm thickness) having minimum 7 mm thick carbon steel as base material.	As per our engineering experience, the absorber is recommended to be made of CS (mimmum thickness of 6mm) with glass flake lining, which is a proven practice and has been applied in many projects. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
9	VI/B	I-M1	19/52	5.06.14	The absorber wet-dry interface shall be made of solid Aolly 59 or C276 of minimum 6mm thickness.	As per our engineering experience, it is recommended to use Aolly 59 or C276 of minimum of 2mm thickness for absorber wet-dry interface, which is a proven practice and has been applied in many projects. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
10	VI/B	I-M1	19/52	5.06.15	The other bridges (supports) shall be lined with minimum 2 mm Alloy 59/ C276.	According to project experience, we propose the bridges (supports) to be lined with glass flake. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
11	VI/B	I-M6	4/41		Existing	We understand any type of Front end loader/ Payloader/ Dozer/ Truck or any type of vehicle is not in bidder's scope. Kindly confirm.	Bidder understanding is correct. Trucks/ pay loader/ Front end loader/ dozers are not in Bidder's Scope
12	Section-VI, Part-B	II-E-6	8 of 23	04.01.00		Cable from FGD Transformer (400/11.5kV) to FGD Control Room shall run on customer's existing racks. Please confirm. Also provide the layout of Cable racks.	Bidder to comply specification requirements. The specifications are clear in this regard.
13	Section-VI, Part-B	II-E-14	1 of 9	02.01.00	Type A fire sealing system in CER & CCR.	Since CER & CCR is not in scope of this tender, so Type A fire sealing system is not applicale. Only Type B fire sealing system shall be provided	Noted.
14	Section-VI, Part-B	II-E-17	4 of 6	3.01.00 & 3.02.00	19/33 kV Grade Power Cable 11/11kV & 6.6/6.6kV Grade Power Cable	33kV & 6.6 kV Grade Power Cable is not applicable.	Noted.
15	Section-VI, Part-B	II-E-12	4 of 20	1.04.02	Auxiliary Transformers - Core shall be.... M4 garde or better quality.	Core shall be supplied as per IS:3024 of 30CG130 grade in place of M4 grade. Please confirm	Bidder to comply specification requirements. The specifications are clear in this regard.
16	Section-VI, Part-E	Tender Drawing	69 of 69	-	Electrical SLD Note: Point No. 6	As per SLD note no. 6 6.6/0.433kV is being mentioned however as per SLD 11 /0.433kV is being considered. Please clarify. Kindly confirm that Sevice Transformer can be Dry Type Transformer also.	Point noted. Refer amendment issued in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
17	Section-VI, Part-B	II-E-10	11 of 17	04.07.00	Occupancy based Passive Infra Red Sensors	Please mention areas where sensors are to be used. As there is no office area, conference rooms etc. in FDG scope so these sensors are not being considered.	This shall be discussed during detail engineering.
18	Section-VI, Part-B	II-E-10	7 of 17	04.00.00 - 10 (h)	Each Lighting Panel..... shall be 2.5kV	Kindly specify the load/area to cater with the said Lighting Panel.	This shall be discussed during detail engineering.
19	Section-VI, Part-B	II-E-12	1 of 20	1.01.00	Impedance - To match with existing transformers	Customer to provide the impedacne of existing transformer.	Bidder to visit site and get acquainted with plant and existing electrical system.
20	Section-VI, Part-B	II-E-1 & E-8	E1 - 3 of 8 E8 - 1 of 39	E1 - 2.01.00 E8 - 1.00.00	E1 - Transformers E8 - Sizing for Load Current Duty	Margin of 10% is already mentioned for sizing of Auxiliary Transformers so further margin of 10% on HT Switchgear is not required.	Bidder to comply specification requirements. The specifications are clear in this regard.
21	Section-VI, Part-B & E	II-E-1	7 of 8 & 69 of 69	E-1 - 6.01.00	Electrical SLD & 11/3.3/6.6kV 10 seconds	As per SLD FGD Transformer is shown to be solidly grounded, however as per clause no. 6.01.00 of Sub Section-II-E-1. Earthing of FGD Transformer shall through NGR. Please clarify.	Point noted. Refer amendment issued in this regard.
22	Section-VI, Part-B				Electrical SLD	Kindly confirm that bidder shall have flexibility to connect LT side of 11/0.433kV Transformer through LT Bus Duct or Cable.	Refer clause 2.03.00 of Sub Section E1 section -VI part -B. Bidder to comply specification requirements. The specifications are clear in this regard.
23	VI/B	IV-D	7 OF 71	3.05.00	Control building, M. C. C. Buildings These shall be framed building with R. C. C. roof and floor. For steel framed building roof /floor shall comprise of RCC slab over profiled metal deck sheets (to be used as permanent shuttering only) over structural beams.		Type of building structure (Steel/RCC) shall be decided by the bidder considering functional requirement, schedule of construction and site constraints, if any. However, roof shall be of RCC as per technical specification. Bidder's understanding regarding roof/floor of RCC framed building is correct.
	VI/B	IV-D	16 OF 71	3.15.00	Limestone Grinding System Building This shall be framed building with R. C. C. roof and floor. For steel framed building roof /floor shall comprise of RCC slab over profiled metal deck sheets (to be used as permanent shuttering only) over structural beams.		
	VI/B	IV-D	16 OF 71	3.16.00	Gypsum Dewatering Building This shall be framed building with R. C. C. roof and floor. For steel framed building roof /floor shall comprise of RCC slab over profiled metal deck sheets (to be used as permanent shuttering only) over structural beams.		

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
24	VI/B	IV-D	16 OF 71	4.01.00	The water from the pit shall overflow into contractor's R.C.C drain, which will lead the discharge finally into owner's drain routed alongside the nearby road.	Please provide the co-ordinates and section (geometry and invert level) of owner's existing drains, where the storm water discharge from proposed FGD area shall be connected.	Bidder to obtain the information from site during detail Engineering.
25	VI/A	III-D	1 OF 3	1.05.00	Site levelling shall be done by owner as per the levels specified in GLP in tender document. However, site clearance and minor grading as required is in bidder's scope.	Since leveling and grading of proposed FGD area shall be done by owner, bidder understands that following works are excluded from bidder's scope: 1. Dismantling of any existing temporary/permanent structures and clearing debris. 2. Slope protection 3. Diversion of any existing facilities/structures, nalla, etc. 4. Stacked materials/equipments etc. if any, located at proposed FGD area shall be cleared by owner. Please confirm.	Bidder's understanding is correct.
26	VI/B	IV-D	28 OF 71	15.00.00	The connection of sewer pipe line for the associated buildings of FGD and Lime and gypsum handling area to nearest owner's sewage network is in bidder's scope.	Please provide the co-ordinates and section (geometry and invert level) of owner's existing sewage network, where the sewer pipe line from the proposed FGD area shall be connected.	Bidder to obtain the information from site during detail Engineering.
27	VI/B	IV-D	52 OF 71	30.05.00	Required plumbing work from Owner's service water terminal point to the service water tank and from tank to the toilet accessories mentioned above.	Please provide the co-ordinates of owner's service water terminal point.	Bidder to obtain the information from site during detail Engineering.
28	VI/B	IV-D	52 OF 71	30.05.00	Required plumbing work from Owner's potable water terminal point to the drinking water tank and from tank up to the water coolers.	Please provide the co-ordinates of owner's potable water terminal point.	Bidder to obtain the information from site during detail Engineering.
29	VI/A	III-D	1 OF 3	1.05.00	Site levelling shall be done by Owner as per the levels specified in GLP in tender document. However, site clearance and minor grading as required is in bidder's scope.	There is no mention of FGL in GLP/tender specification for proposed FGD area. Please furnish the FGL to be adopted for proposed FGD area. Also during detailed engineering (if necessary) only micro grading up to a maximum depth of 0.30m below FGL will be done by bidder. Please confirm.	FGL is mentioned in GLP as RL (+) 220M. Site clearance and minor grading, as required, is in bidder's scope.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
30	VI/A	II	15 OF 29	7.02.03 i)	Two stage flushing of pile bore shall be ensured by airlift technique duly approved by the employer.	Flushing of pile bore shall be done as per IS 2911 Part-1 Section-2. Please confirm.	Bidder to comply the Technical Specification
31	VI/A	II-A1	17 OF 29	7.02.03 xv)	High Strain Dynamic Load Test may be carried out for routine load testing of working piles. However, at least two numbers of static routine vertical load tests shall be carried out on pile on which high strain dynamic load test has already been carried out for establishing the correlation between the two tests. In case of discrepancy if any between dynamic and static vertical load tests, then additional static routine vertical load tests shall be conducted as decided by the Engineer and the results of static routine vertical load shall prevail. Number of routine vertical pile load tests as per clause 7.02.03 (ix) shall be total of static routine vertical load test and high strain dynamic load tests.	High strain dynamic load test is not required as static routine load test are being carried out in the piles. Please confirm.	Routine pile load tests to be performed on 0.5% of the total number of piles provided for each diameter/allowable capacity. High Strain dynamic load test may be carried out for routine load testing of working piles. However, at least two numbers of static routine vertical load tests shall be carried out on pile on which high strain dynamic load test has already been carried out for establishing the correlation between the two tests. In case of discrepancy if any between dynamic and static vertical load tests, then additional static routine vertical load tests shall be conducted as decided by the Engineer and the results of static routine vertical load shall prevail. Number of routine vertical pile load tests as per clause 7.02.03 (ix) shall be total of static routine vertical load test and high strain dynamic load tests. In case agency wish to carry out only static routine vertical load test on 0.5% of total number of piles, he may adopt the same.
32	VI/A	II-A1	21 OF 29	7.07.02.05	Recommendations on foundation system and the net allowable bearing pressure and pile capacity shall be based on the conservative values of Geotechnical investigation data.	Recommendations on foundation system and the net allowable bearing pressure and pile capacity shall be based on the average values of Geotechnical Investigation data. Please confirm.	Bidder is required to carry out geotechnical investigation in this area. During detailed engineering, the Allowable Bearing Pressure and pile capacity shall be adopted after approval of geotechnical investigation report. However, the maximum allowable bearing pressure shall be lower of the two values i.e. as per approved geotechnical report and as per the values furnished Technical Specification and the pile capacity shall be least of the three values i.e. as per approved geotechnical report, as per the values furnished in Technical Specification and pile capacity achieved in pile load tests.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
33	VI/A	II-A1	23 OF 29	Annexure-I (Hisar)	b) However, the maximum allowable bearing pressure shall be lower of the two values i.e. as per approved geotechnical report and as per the values furnished in Table-2.	The maximum allowable bearing pressure shall be as per the approved geotechnical report during detailed engineering. Please confirm.	Bidder is required to carry out geotechnical investigation in this area. During detailed engineering, the Allowable Bearing Pressure shall be adopted after approval of geotechnical investigation report. However, the maximum allowable bearing pressure shall be lower of the two values i.e. as per approved geotechnical report and as per the values furnished in Table-2.
34	VI/A	II-A1	24 OF 29	Annexure-I (Hisar)	d) The allowable load capacity of the pile in different modes (vertical compression, lateral and pull out) shall be least of the three values i.e. as per approved geotechnical report, as per the values furnished in following table and pile capacity achieved in pile load tests.	The allowable load capacity of the pile in different modes (vertical compression, lateral and pull out) shall be least of the two values i.e. as per approved geotechnical report and pile capacity achieved in pile load tests. Please confirm.	Bidder is required to carry out geotechnical investigation in this area. During detailed engineering, pile capacity shall be adopted after approval of geotechnical investigation report. However, the pile capacity shall be least of the three values i.e. as per approved geotechnical report, as per the values furnished in Technical Specification and pile capacity achieved in pile load tests.
35	VI/A	II	12 OF 29	7.00.01	The bore logs of vicinity are enclosed at annexure-II.	Annexure-II is not available in the tender document. Please furnish the following details of the proposed FGD area: 1. Bore logs 2. Electrical Resistivity Test Results. 3. Laboratory test results 4. Chemical analysis of ground water and sub soil	Refer amendment issued in this regard.
36	-	-	-	-	General	Please provide the Topographical Survey drawing of the proposed FGD area.	Topographical Survey drawing is not available.
37	VI / B	IV	10 of 71	3.14.01	The center to center distance between the pro-posed chimney(s) and the existing chimney(s) & NDCT in any direction shall not be less than 150 me-ters.	Bidder understands that the center of new chimney/chimneys shall be minimum 150m away from existing chimney & NDCT center. Please confirm. Bidder understands that the center of new chimney/chimneys shall be minimum 150m away from existing chimney & NDCT center. Please confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
38	VI / B	IV	13 of 71	3.14.03	The entire external surface of chimney shell shall be painted with epoxy phenolic coating as specified in (iv) above in alternate bands of 'signal red' and 'bright white' colors.	Bidder understands that the entire external surface of chimney shell shall be painted with epoxy phenolic coating as specified in (iii) above in alternate bands of 'signal red' and 'bright white' colors. Please confirm.	Bidder's understanding is correct. Refer amendment issued in this regard.
39	VI / B	IV	14 of 71	3.14.08	Thermal insulation (Applicable in case of Titanium / C-276 Flue Liner)	Bidder understands that no outer thermal in-sulation is required in case of borosilicate lining is adopted on inner surface of liner.	HPGCL/NTPC asked the bidder to refer Clause 2.01.04 Subsection V of Part A of the technical specification for clarity in this regard.
40	VI / B	IV	15 of 71	3.14.09	..... Dynamic interference effects due to additional chimney(s)/NDCTS's and other tall structures located up to distance of 20 times diameter at 2/3rd height of subject chimney, in the area or in the future expansion stage of the project, as envis-aged by the owner at the time testing, shall be determined along with the other topographical features of the local area through model test.	The location of new wet chimney shall be near to the existing chimney/NDCT in the space provided clearing foundation interface. The design of new wet chimney/chimneys shall be done considering interference factor of existing chimney/NDCT/other structures as determined by wind tunnel study. However, no design check or validation shall be done for existing chimneys/NDCT/structures/building. Kindly confirm	Bidder to ensure that minimum distance criteria (150m c/c) from existing chimneys and NDCT's is maintained as per the provisions of Technical Specification. No Design Check is re-quired for existing chimneys/NDCT's.
41	VI / A	III- A1	10 of 10	24.00.02	Drain piping shall be of suitable material from corrosion point of view.	Please specify the material property for condensate drainage piping.	HPGCL/NTPC clarified that the bidder will select the corrosion resistant material for the drain piping, which can be discussed during detailed engineering.
42	VI / A	V	2 of 13	2.01.01	A "wet Chimney" shall be installed downstream of Wet Flue Gas Desulfurization (FGD) system by the Contractor.	Bidder understands that the subject Chimney will not be operated under bypass mode.	Bidder's understanding is correct. However, the flue gas temperature may approach the economiser outlet temperature of about 300°C in case the regenerative airpreheaters fails to operate as per Clause 1.01.00 of Subsection I-M1 Part B. The Contractor shall take this aspect into account while designing the system.
43	VI / A	V	3 of 13	2.01.04	Alternatively, Contractor can also provide chimney of 8 mm thick (minimum) mild steel with Borosilicate Glass Block Lining of minimum 38 mm thick-ness,	Bidder understands that borosilicate glass block lining thickness is fixed as 38mm. Kindl confirm.	Please refer Clause No. 2.01.05 of the referred section, wherein Borosilicate Glass Block Lining of minimum 38 mm thickness is specified.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
44	VI / A	V	3 of 13	2.01.05	The minimum length of flue liner projecting over the chimney roof shall be at least equal to diameter of flue liner.	The maximum length projecting above the chimney roof shall be 6-7m as per standard practice. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
45	Section-VI/ Part-A	Sub-Section-III-A1	Page 8 of 10	14.00.00	The contractor scope shall also include the provision of FGD Trestle for routing of air & water lines, slurry lines, steam line, waste water, etc. required for the complete process operations.	It is understood that pipe racks need to be constructed in new area for FGD requirement. However, existing pipe racks shall be used for routing pipes related to FGD system wherever need to do so arises. Kindly confirm.	HPGCL/NTPC clarified that pipe racks as per requirement shall be constructed by the bidder. Existing pipe racks shall not be used.
46	Section-VI, Part-A	Sub-Section-III-A1 & Sub-Section-III-A4	Page 8 of 10 & Page 1 of 1	11.00.00 & 1.00.00	Building & Equipment Cooling Water System	Please clarify whether various Equipment Cooling Water Auxiliaries of FGD system are to be kept in building or shed.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder as per Clause 11.01.00 of Subsection III-A1 for requirement of buildings.
47	SECTION-VI / PART-B	I-M3 COMPRESSED AIR SYSTEM	1 OF 6	2.02.00	Design and Construction – For Compressor	MOC of all components within compressor skid shall be as per OEM standard. The MOC and design of all components outside the skid shall be as per technical specification/NIT. This is being followed in all the projects executed by Bidder for NTPC and other customers. PI. accept.	Equipments of Compressed Air System shall be designed as per Technical Specification. However, as per manufacturer's standard design, any superior material to the material specified in technical specification of various components of screw compressor shall also be acceptable.
48	SECTION-VI / PART-B	I-M3 COMPRESSED AIR SYSTEM	2 OF 6	4.00.00	Intercooler, Aftercooler & Oil coolers (For Screw)		
49	SECTION-VI / PART-B	I-M3 COMPRESSED AIR SYSTEM	5 OF 6	9.01.06	The following indications shall be made available in the control panels for repeating the same in main plant control system / panels.	Bidder understands that the required indications shall be made in FGD control room and not in main plant control room. NTPC to confirm.	Bidder's understanding is correct. Bidder to refer Amendment in this regard.
50	SECTION-VI / PART-B	I-M3 COMPRESSED AIR SYSTEM	5 OF 6	9.02.01	Each compressor shall be in the control panel to operate either in Base duty (Auto Load-Unload) or Standby duty (Auto On-Off) mode in case of Screw and unload/modulate/energy optimization (Auto Dual Mode) in case of centrifugal	Bidder understands that Centrifugal type air compressors are not applicable for such smaller capacity machines. NTPC to confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
51	SECTION-VI / PART-A	III-A2 AIR CONDITIONING, VENTILATION SYSTEM & COMPRESSED AIR SYSTEM	3 OF 4	3.00.00(a)	Two numbers (1 W + 1S) oil free, rotary screw type air compressors for Instrument air & service air application for.....	1.) Bidder understands that the common compressor is to be provided for Instrument air & Service application. 2.) NTPC to confirm whether the common piping network to be provided for Instrument air and Service air application for plant use or a separate network of Instrument air & Service air to be provided. Pl. confirm, as bidder have considered common piping network for IA & SA application.	Bidder's understanding is correct.
52	SECTION-VI / PART-A	VI FUNCTIONAL GUARANTEES & LIQUIDITY DAMAGES	27 OF 30	xxiii	Total power consumption at motor input terminal at rated duty of air compressor.....	Bidder request NTPC to specify the duty factor for considering the auxiliary power consumption for Compressed air system. As the continuous consumption of compressed air will be much lesser than the rated compressor capacity specified by NTPC. In such case, the compressor will go under unload conditions for a considerable time and thus lower power requirements. We request you to specify duty point for air compressors.	Bidder to comply with the specification requirements.
53	Section VI	Part D:ECC	14 of 53	32.00.00	Contractor's area limit	Bidder understands that land for contractor's office', storage ,fabrication yard ,Labour colony etc shall be provided by purchaser free of cost.	HPGCL clarified that the land for contractor's office', storage and fabrication yard shall be provided free of cost at the discretion of the employer. However, land for labour colony shall be arranged by the contractor itself.
54	Section VI	Part A	7 of 8	1.14.00	Construction power	Bidder understands that free electricity shall be provided by customer upto handing over of the plant.	Bidder to comply technical specifications. Technical Specifications are clear in this regard.
55	Section VI	Part D:ECC	11-12 of 53	27.04.00	Railway siding	Bidder understands that handling of coal is in scope of customer.	Bidder's understanding is correct. However, it may be noted that railway siding may not be available to the bidder for material/supplies transport etc.
56	Section VI Part A	III-C	16 OF 18	13.00.00	The minimum quantity of furniture per generating unit envisaged in FGD control room is as mentioned below	As per the description given in the specification, there is only one FGD Control room common for all the Units. We presume the quantity of furniture indicated in this clause is common for all the Units. Please clarify and confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
57	Section VI Part A	III-C	15 of 18	10.01.00	<p>Hardwired Signal exchange: Hardwired signal ex-change between employer's DDCMIS and FGD DDCMIS (under Contractor's scope) like bypass damper status, inlet and outlet gates status, ID Fans status, ESPs status, Boiler Load Index (BLI), MFT etc. shall be provided on as required basis, for implementation of protections and interlocks. Contractor shall provide one Remote Input Output (RIO) per unit, placed in Central Equipment Room (CER) for the same.</p>	<p>Please provide the Tentative route length dis-tance between the following: (i) RIO Panel and employer DCS. (ii) RIO Panel and 24 V DC feeder (Custom-er provided) (iii) FGD RIO Panel & FGD Control room.</p> <p>Also modification and changes required at the Customer's DCS end/station LAN for FGD interface is also not in Bidder's scope. Please confirm.</p>	<p>The specification is clear in this regard. (i) Bidder to visit site for additional details. (ii) Bidder to refer the Terminal points and exclusion in Sub section IV Part - A in this regard.</p>
58	Section VI Part B	III-C1	3 of 4	3.04.00	<p>The equipment shall employ latest state of the art technology to guard against obsolescence. In any case, bidder shall be required to ensure supply of spare parts for 15 years of the plant. In case, it is felt by the Bidder that certain equipment/component is likely to become obsolete, the Bidder shall clearly bring out the same in his bid and indicate steps proposed to deal with such obsolescence</p>	<p>Normally Electronic cards/module phased out in 8-10 years due to continuous up-gradation in technology, hence we request Customer to suitably modify the given clause as given below:</p> <p>Bidder shall ensure availability of Spares for 10 years. Beyond this period, in case of phasing out of production of spares parts, a notice of 12 months in advance regarding this shall be provided to Owner in order to enable them to order & stock bulk requirement of spares</p>	<p>The specification is clear in this regard. Bidder to comply to the requirement of technical specification.</p>

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
59	Section VI Part B	III-C5	4 OF 23	2.02.02	The measurement system of control system shall perform the functions of signal acquisition, conditioning and signal distribution of various types of inputs/outputs like analog, (4-20mA DC either from pressure / DP/ flow/ level transmitters, analyzers etc. as well as from temp. transmitters for all temp), binary, pulse, digital transmission through serial port, bus connection etc. (from remote I/O etc., through various industry standard protocol including MODBUS/FIELDBUS/PROFIBUS, prefabs field and ethernet etc. The inputs, which are required for only information and monitoring purposes shall be distributed suitably in various groups plant area-wise.	We understand that profibus based controls are not applicable for this project. DDCMIS based control system shall be provided in the conventional type. Please confirm the same.	Bidder's understanding is not correct. Fieldbus based DDCMIS is envisaged for this project for interfacing fieldbus compatible field devices and actuators.
60	Section III	BDS	5 of 18	3.1.4.3	Deed of Joint Undertaking (DJU)	Bidder has Technology Collaboration Agreement (TCA)/Technology License Agreement (TLA) with Reputed QFGDM (a competent FGD supplier) valid upto 2028. In view of this, all Bids/M.O.M. etc. shall be signed by Bidder's personnel as mentioned in Power of Attorney on behalf of both the Bidder and Collaborator. Further, there is no need of submission of Deed of Joint Undertaking (DJU). However, we confirm that we meet the Qualifying Requirements of the Tender. The same practice has been followed by the Bidder in recent FGD tenders of various Central, State and Private Utilities. HPGCL to confirm.	HPGCL/NTPC clarified that tender requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
61	VI/B	II-E-9	11 of 59	4.17.00	All draw-out modules shall be provided with "Closed door operation" feature wherein movement of the module from "Isolated" position to "Service" position & vice-versa and power ON / OFF operation of the module shall be possible only with the module door closed condition.	We propose all draw-out modules shall be as per normal conventional design instead of "Closed door operation" feature.	Bidder to comply technical specifications. Technical Specifications are clear in this regard.
62	VI/B	II-E-9	14 of 59	7.03.00	All busbars and jumper connections shall be of high conductivity Aluminium alloy / Copper of adequate size.	We have considered Aluminum Bus bar.	Bidder to comply technical specifications. Technical Specifications are clear in this regard.
63	Section-VI	Part-B, Sub-section IM-4	99 of 186	5.08.03	FGD Fire alarm system shall be provided with necessary interface hardware and software communication fire alarm from this fire alarm panel to the main plant fire alarm control panel through potential free contacts.	For interface with existing FAP, 2 (Two) Nos. potential free contact will be provided in new FAP. Any accessories and interface cable required shall be in customer's scope. Kindly confirm.	Potential Free Contacts shall be provided by the bidder. Quantity of PFC shall be finalised during detailed engineering. PFC shall be in the contractors scope. However cabling from PFC to employers fire alarm panel shall be in the employer's scope.
64	Section - VI, Part- E (Tender Drawings)	FGD Package- Scheme of FGD-Absorber System (Drg. No: 9944-250-POM-A-001 Rev.A)	-	-	In the Seal Air System shown in this drawing for FGD Bypass Damper, Temperature Transmitter (TT), Temperature Switch (TS), Flow Switch (FS) and Pressure Transmitter (PT) are shown.	Please note that FGD Bypass Damper do not require any Seal Air Heater (as per technical specification for new wet stack arrangement). Temperature Transmitter (TT), Temperature Switch (TS) and Flow Switch (FS) are applicable only when Seal Air Heater is applicable. However, for FGD Bypass Damper for new wet stack arrangement, seal air heater is not applicable and hence, Temperature Transmitter (TT), Temperature Switch (TS) and Flow Switch (FS) are not applicable. Only Pressure Transmitter (PT) is applicable for FGD Bypass Damper (similar to Booster Fan Inlet & Booster Fan Outlet Guillotine Gates). Please confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
65	Part- A, Section - VI	Sub- Section- III-A1 (FGD)	2 of 10	2.04.00.	Provision shall be made for facilitating operation of unit with FGD bypass through existing stack. All modifications required including providing bypass damper is included in the scope of the Contractor.	For RGTPP, HISAR 2x600 MW project, we request Customer to provide the Layout of ID System ducting drawing (Elevation & Plan) of the existing boiler package to know the dimensions of the FGD Bypass Duct (duct connecting ID Fans to the existing chimney). This is required to know the duct size of FGD Bypass Damper (required for estimation and supply of this damper).	Please refer Subsection-II, Part-A of the technical specification, wherein the required drawings are provided. In case of additional requirement, Bidder is requested to visit site and collect required data.
66	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	6 of 52	3.01.00 Sl. no: 5	Flue Gas Velocity: Maximum flue gas velocity through the Absorber (m/s)- Not more than 4 m/s at design point	Clarification: As per our FGD design practice, maximum gas velocity through the Absorber shall be 4.0-4.5m/s. Kindly confirm	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
67	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	7 of 52	3.01.00 Sl. no: 6	Recirculation Slurry pH: Not Less than 5.5 under all operation conditions	Clarification: Based on our FGD design practice, slurry pH in the Absorber is between 5 and 6.5. FGD will be designed for the same. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
68	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	17 of 52	5.06.02	The design of flue gas ducts and inlet and outlet hoods of the FGD as well as guide vanes and baffle plates shall ensure a homogeneous flue gas flow with respect to the distributions of: (i) temperature (ii) velocity (iii) dust content (iv) slurry injection and distribution. The above shall be proven by two phase Computational Fluid Dynamics simulations (liquid and gas). The scope of modelling shall include flue gas path inside the absorber vessel including inlet and outlet duct. Homogeneity shall be ensured, if the deviation from average is less than +10%. Further, in the Absorber outlet hood no internals such as guide vanes and baffle plates shall be allowed.	Clarification: Customer's requirement "deviation from average: less than ±10%" is too strict and it is not required for the stable operation at the actual plants based on MHPS' experiences. The deviation from average is generally 15-20% and MHPS designed and delivered FGD plants based on the deviation from the average for approx. ±15%. Bidder requested to change deviation from "±10%" to "±20%".	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
69	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	17 of 52	5.06.06	Mist Eliminator: Three stage chevron type Mist Eliminators (ME) made of Polysulfone or stainless steel shall be provided at the exit of the absorber.	Clarification: As per our proven practice, Mist Eliminator will be made of polypropylene (PP) or FRP. Kindly confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
70	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	19 of 52	5.06.11	The complete absorber vessel (absorber oxidation tank, absorber tower & absorber outlet duct upto absorber outlet flange) shall be made of clad sheet of C276 / Alloy 59 (minimum 2 mm thickness) having minimum 7 mm thick carbon steel as base material.	Clarification: Welding of clad sheet of C276 at site is difficult. C276 Clad sheet suppliers are not expressing interest to do field welding of clad sheet. In contrast, C276 Wall paper erection is relatively simple. Our collaborator has experience in C276 wall paper. We request customer to accept C276 wall paper also.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
71	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	19 of 52	5.06.14	All internal members shall be lined with minimum 2 mm Alloy 59/C276	Clarification: We understand that this specification is for the support members of internals (i.e Mist Eliminator supports, Spray Pipe supports) As per proven design practice, since spray pipes are in contact with slurry we will provide C276/Alloy59 2 mm lining whereas the mist eliminator area is not in contact with slurry. However to take care of corrosion, it is proposed to use Carbon steel support members with 4mm thk rubber / 2mm thk Glass flake lining. This is being installed in many FGD plants and working successfully.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
72	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	20 of 52	5.06.23	For the agitators a flushing system for startups shall be provided.	Clarification: Maximum Slurry concentration is 30% in Limestone Slurry & Auxiliary Absorbent Tanks. Agitator Impeller will be kept well above slurry sedimentation level (above LL). Hence Emergency flushing system during start up is not required for all slurry tanks.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
73	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	29 of 52	7.08.03	Agitation shall be provided to prevent settlement of slurry by side entry agitators with emergency flush start system.		

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
74	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	32 of 52	10.01.00	Coarse-screen(s) of suitable material at suction-side of the pumps shall be provided.	Clarification: Coarse screens are generally considered at the suction side for Slurry Recirculation slurry pumps. Suction screen will be provided inside the Absorber for Recirculation slurry pumps. All other slurry pumps are handling fine slurry only. Hence coarse screens are not envisaged for other slurry pumps and also process water pumps. Please accept.	HPGCL/NTPC clarified that coarse-screen(s) at suction-side of slurry recirculation pumps shall be provided as per specification requirement.
75	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	34 of 52	12.02.00	All the pipes handling slurry shall be provided with replaceable rubber lining of proven quality. The Contractor can provide slurry pipes of size lower than 300 NB made up of FRP material (silicon carbide coating on slurry exposed surface) if it has previous experience of providing the same. Outer surface of the pipes should be fire retardant.	Clarification: As per proven practice, all the pipes handling slurry shall be provided with FRP material. FRP pipes are highly corrosive & abrasion resistant material and widely used for slurry application. Since we are using spray headers inside Absorber made up of FRP. Requesting customer to allow all pipes handling slurry(> 300NB) with FRP option.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
76	Section - VI, Part- B	Sub- Section- I- M1 (FGD SYSTEM)	20 of 52	5.06.24	It should be possible to discharge the absorber sump into the Auxiliary Absorbent tank within 2 hours.	Clarification: We propose 8 hours to discharge the slurry from absorber / absorber sump into the emergency drain tank to have optimum design of pumps. Please confirm	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
77	Part-B	SUB-SECTION-I-M1 (FGD)	50 of 52	7.03.08	Agitation shall be provided to prevent settlement of slurry by side entry agitators with emergency flush start system.	Deviation: As per proven practice, vertical agitators used for all slurry tanks except Absorber. Side entry agitator will be used for Absorbers. This is being followed in all NTPC tenders. Kindly accept.	HPGCL/NTPC clarified that any design specific issues shall be discussed and resolved during detailed engineering.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
78	Part-B	SUB-SECTION-IV Civil Works	35 of 71	19.00.00	All steel structures shall be fabricated in factory, transported and erected at site. All factory fabricated structures shall have bolted field connections.	Deviation: Since, the project is being constructed in existing plant, structures like duct and pipe rack are to be routed near to the existing building and structures. Hence it is requested that welding connections may be permitted for these structures in view that the modification of these structures can be done at site which may be arise due to unforeseen obstructions (both above and below grounds) Kindly Accept.	All steel structures shall be fabricated in factory, transported and erected at site. All factory fabricated structures shall have bolted field connections. Site welding shall be permitted in cases where final inputs are not available prior to dispatch of supporting/connecting members. Absorber vessel can be fabricated at site. In case bidder offers chimney flue liner cladding of C276/Titanium, it has to be fabricated in factory in segments, transported and welded at Site. However, in case the bidder offers chimney lining material as MS with Boro-silicate, the same can be fabricated at site.
79	Sec VI- Part E	Tender SLD	69/69	-	SLD- Note-Sr.no -3	Transformer rating only upto 1.6MVA indicated. However in other NTPC projects same are used upto 2.5MVA	Refer amendment issued in this regard.
80	Sec VI- Part E	Tender SLD	69/69	-	SLD- Note-Sr.no- 9- Transformer outdoor oil filled	Dry type indoor proposed by Bidder	Acceptable. Refer amendment issued in this regard.
81	Sec VI- Part E	Tender SLD	69/69	-	-	Crusher feeders not indicated in 3.3KV SLD board. Same may be required during detailed engg. Bidder proposes to use single DOL feeders per crushers for reversible crushers.	Refer note 5 of tender SLD for clarity.
82	Sec VI- Part E	Tender SLD	69/69	-	-	Emergency DC lighting for LHP-GHP shall not be from emergency board	Bidder to comply specification requirement. This will be decided during detailed engineering.
83	Sec VI- Part E	Tender SLD	69/69	-	-	Local control panels cum starter panels proposed for Scoop panels, Sump pumps, DE system etc.	Noted.
84	General			-	-	No interconnection with existing plant considered for LHP-GHP systems	Specification requirements are clear in this regard.
85	Sec VI- Part B	M6	15/41	-	Conveyor drive above 160KW, HT drive to be considered	Crushers rating above 160KW & upto 200KW, LT motor shall be considered. Please confirm	Bidder to comply with technical specification requirement
86	Sec VI- Part B	M6	27/41	-	LSU	LSU PLC shall be located near crushers in Crusher house & not in MCC control room building	Bidder's understanding is correct.
87	Sec VI- Part B	M6	29/41	-	Limestone crushers -VMS	VMS shall be considered only for Crusher equipment & not for HT motors	Specification requirement is clear. VMS shall be provided for HT motors as well.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
88	Sec VI- Part B	III-C8 Electric actuators	3/4	4.0	Fieldbus actuator interfaces	LHP-GHP has flap gate actuators for which normal hardwire connections are proposed as interface with DDCMIS & not profibus PA/Foundation field bus shall be considered since same is not required for LHP-GHP flap gate actuators	Bidder understanding is incorrect. Bidder to comply with the requirements of technical specification.
89	Sec VI- Part B	III-C9 Control desks	-	-	-	No control desk envisaged for LHP-GHP systems	Specification requirements at clause no. 13.00.00, PART-A, SUB-SECTION-III-C to be complied.
90	Sec VI- Part B	II-E6	2/23	2.00	Interplant cabling	LHP GHP cables shall be laid in conveyor gallery since lime is not inflammable material & like other FGD projects same is proposed for this project also.	Noted.
91	VI/E	-	-	9944-250-POM-A-005	Tender Drawing	Bidder proposes Reversible belt feeder instead of Plough feeder in the "Limestone Day storage silo" area	Reversible belt feeder is acceptable in stead of Plough Feeder for feeding.
92	VI/E	-	-	9944-250-POM-A-006	Tender Drawing	It is not feasible to provide dust extraction system at Gypsum storage shed since volume is very high and locating DE hood is not possible. Bidder propose for plain water dust seperation system. Please confirm	Bidder to comply with technical specification requirement
93	VI/E	-	-	9944-250-POM-A-005	Tender Drawing	Specify the storage capacity of crushed limestone main storage silo	Bidder to refer Section-VI,Part-A, Sub-Section-III-A-5,Cl. 1.01.04
94	VI/A	III-A5	1 of 7	1.03.00	storage Requirement	Bidder proposes 7 days Gypsum Storage Facility as per Industry Practice.	Bidder to comply with technical specification requirement
95	VI/A	III-A5	4 of 7	2.01.15	Suitable No. of Plough.....	As per the clause bidder propose to feed Limestone Day Silos & Storage Silos directly from Bucket elevators via chutes.	Bidder to provide any of the following system to feed Limestone Day Silos & Storage Silos directly from Bucket elevators 1) Travelling tripper 2) Plough System 3) Fixed Trippers 4) Reversible Belt Feeder
96	VI/B	I-M6	5 of 41	4.04.00	Dust Extraction system	Bidders propose Dry type Dust Extraction system instead of Venturi Scrubber type dust extraction system	DE system shall be dry type for Lime stone Handling and Gypsum Handling system. Bidder to refer Amendment in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
97	-	-	-	-	General	Please Specify the idler bearing life?	IS 8598 shall be followed for Idler Bearing Life
98	-	-	-	-	General	Please specify whether counter weight of conveyor shall be made of cast iron or concrete	Counter weight of conveyor shall be made of concrete.
99	-	-	-	-	General	Please specify the location of sump water to be discharged.	Bidder to refer Sub Section IV Part-A Section VI of Technical Specifications.
100	-	-	-	-	General	Bidder understand that there is no direct feed of gypsum into Truck via Motorized travelling tripper/flow diverter	Bidder understanding is not correct. Bidder to provide provision of direct feed of gypsum into Truck via Motorized travelling tripper/flow diverter.
101	-	-	-	-	General	Bidder understand pay loader/ Front end loader shall be in Customers scope, If not please furnish Specification	Bidder understanding is correct. Trucks/ pay loader/ Front end loader/ dozers are not in Bidder's Scope.
102	-	-	-	-	General	Please clarify the final location of waste water discharge from Sump pump of Gypsum storage shed.	Bidder to refer Sub Section IV Part-A Section VI of Technical Specifications.
103	SECTION – VI, PART-A	SUB-SECTION-III-A1 (FGD)	8 of 10	14.00.00	The contractor scope shall also include the provision of FGD trestle for routing of air & water lines, slurry lines, steam line, waste water, etc.. required for the complete process operations.	Bidder proposes to use existing Owner's pipe racks for routing pipes / cables related to FGD system. In other areas within FGD, new trestle as required shall be considered. Please confirm acceptance.	HPGCL/NTPC clarified that pipe racks as per requirement shall be constructed by the bidder. Existing pipe racks shall not be used.
104	SECTION – VI, PART-A	SUB-SECTION-III-A1 (FGD)	4 of 10	4.01.04	2x100% electric driven, single stage, integrally geared, single or dual vane centrifugal type / positive displacement (Helical lobe) type with VFD drive, oxidation blowers complete with integral gearbox, lube oil system, instrumentation and accessories.	Bidder requests to modify the clause as 2x100% electric driven, single stage, integrally geared, single or dual vane centrifugal type / positive displacement (Helical lobe) type with or without VFD drive, oxidation blowers complete with integral gearbox, lube oil system, instrumentation and accessories.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
105	SECTION – VI, PART-A	SUB-SECTION-III-A1 (FGD)	6 of 10	8.02.00	The Interior surface of the Sumps shall be lined with replaceable Chlorobutyl / Bromobutyl rubber lining of minimum 5 mm thickness or with vinyl ester based flake glass lining of minimum 3 mm thickness.	As per proven practice of our Collaborator, Bidder suggests Interior surface of the Sumps shall be lined with resin mortar Lining of minimum 5 mm. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
106	SECTION – VI, PART-A	SUB-SECTION-V SALIENT DESIGN DATA	2 of 13	1.00.00 (Notes)	Pressure at Terminal Point before Booster Fan Suction shall be Zero (0) mmwc at Guarantee point Condition	Based on clause 4.01.01, Bidder understands pressure at terminal point before Booster Fan Suction shall be Zero (0) mmwc in all conditions. Please confirm.	Bidder's understanding is correct for Design Point and Guarantee Point conditions.
	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	9 of 52	4.01.01	(iii) Pressure at Terminal Point before Booster Fan suction : 0 mmWc		

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
107	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	6 of 52	3.01.00	5. Maximum flue gas velocity through the Absorber (M/sec) Not more than 4 m/s at Design Point Conditions	Since the gas flow path is different in Jet Bubbling Reactor, this clause is not applicable to our offered Process.	Bidder's understanding is correct.
108	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	6 of 52	3.01.00	Recirculation Slurry pH. Not less than 5.5 under all operating conditions	Since there is no recirculation slurry in Jet Bubbling Reactor, this clause is not applicable to Jet bubbling type reactor. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
109	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	16 of 52	5.04.00	Gypsum Bleed Pump Margins- Head -20%	Bidder understands that margin to be considered is on frictional head as per engineering practice. Please confirm.	HPGCL/NTPC clarified that margin shall be provided on total head.
110	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	19 of 52	5.06.14	The absorber wet-dry interface shall be made of solid Alloy 59 or C276 of minimum 6 mm thickness.	Bidder proposes to use CS + FIRP (flake glass) lining of 2 mm thickness as per collaborator's proven global experience.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
111	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	14 of 52	5.01.00 B	The sparger and gas riser tubes shall be made proven material which shall have a minimum life of 5 years. Minimum 10% redundancy, shall be provided in the Sparger Tubes.	To achieve the desired performance as mentioned in the tender specification, the velocity profile in absorber is designed at guarantee point/design point. For achieving the desired bubbling effect in the absorber, suitable numbers of spargers are provided. Any additional spargers provided inside the absorber shall have an adverse effect on the velocity profile and hence on the performance of the absorber. Further, the life of the spargers as per our collaborator's experience is higher than five years. In view of the above, no redundancy in the installed spargers is envisaged.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
112	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	20 of 52	5.06.23	For the agitators a flushing system for start ups shall be provided.	In the offered technology the impeller of absorber agitators are mounted above the slurry settling zone, thus starts without flushing system even after a long shutdown as per collaborator proven design successfully operating worldwide. Hence, requirement of separate flushing system is not envisaged.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
113	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	33 of 52	11.05.00	...For Agitators in other tanks, agitator blades shall be made with Alloy 926 or better material & shaft can be rubber lined.	For agitators in other tanks, agitator blades & shaft shall be made with carbon steel rubber lined, as per proven collaborator experience.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
114	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	26 of 52	7.04.03	The complete frame of the filter and all parts in contact with gypsum shall be made with corrosion resistant material.	Based on Gypsum dewatering system vendors' input, Bidder proposes CS body with epoxy paint for the complete frame which is standard material offered by vendors.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
115	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	26 of 52	7.04.04	In case, the contractor offers a design with an underlying belt for carrying the filter cloth, the same shall be endless, factory vulcanized rubber belts.	This shall be as per proven practice of OEM.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
116	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	20 of 52	5.06.24	It should be possible to discharge the absorber sump into the Auxiliary Absorbent tank within 2 hours.	It will not be possible to discharge the absorber sump into the emergency drain tank within 2 hours. The effective slurry volume (between normal & minimum slurry level) of Absorber tank shall be discharged to Emergency Drain tank by gypsum bleed pump. Balance dead volume of slurry shall be discharged through existing drain system sized for normal operation of Plant.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
117	SECTION-VI, PART-B	SUB-SECTION-I-M1 (FGD)	24 of 52	6.07.00	Limestone Slurry Supply Pumps & Piping Margins Heads 15% (minimum)	Bidder understands that margin to be considered is on frictional head as per engineering practice. Please confirm.	HPGCL/NTPC clarified that margin shall be provided on total head.
118	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	20 of 52	5.06.23	The Screens shall be made of made of Alloy 59 /C276 or abrasion resistant FRP/Polypropylene (in case Contractor/ Collaborator has proven experience).	Bidder requests Owner to modify the clause as, "The Screens shall be made of made of Alloy 59 /C276 or SS 316L or abrasion resistant FRP/Polypropylene (in case Contractor/ Collaborator has proven experience)."	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
119	SECTION-VI PART-B	SUB-SECTION-I-M1 (FGD)	19 of 52	5.06.11	The complete absorber vessel (absorber oxidation tank, absorber tower & absorber outlet duct upto absorber outlet flange) shall be made of clad sheet of C276 / Alloy 59 (minimum 2 mm thickness) having minimum 7 mm thick carbon steel as base material.	The absorber vessel material shall be CS + FIRP (flake glass) lining of 2 mm thickness as per collaborator's proven global experience.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
120	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	30 OF 52	8.04.00	All the slurry pumps shall be provided with motorized suction and discharge valves.	Bidder proposes "All the slurry pumps shall be provided with motorized / pneumatic suction and discharge valves." Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
121	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	34 OF 52	12.02.00	All the pipes handling slurry shall be provided with replaceable rubber lining of proven quality. The Contractor can provide slurry pipes of size lower than 300 NB made up of FRP material (silicon carbide coating on slurry exposed surface) if it has previous experience of providing the same.	Bidder proposes to use FRP pipes for all sizes for the slurry pipes. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
122	SECTION – VI, PART-B	SUB-SECTION-I-M1 (FGD)	6 OF 52	3.02.04	The duct from Absorber outlet to the new wet flue chimney shall be made of Carbon steel of minimum 7mm thickness clad with 2 mm (minimum) thickness Alloy C276 / Alloy 59 / Titanium Gr-II	Bidder proposes the duct from Absorber outlet to the new wet flue chimney shall be made of CS + FIRP (flake glass) lining of 2 mm thickness as per collaborator's proven global experience.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
123	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	37 of 52	14.17.00	Inter-connecting pipes/cables between various facilities of FGD plant shall be routed on the steel trestles to be provided by the Contractor. The clear head room for the same shall be minimum 8 M.	Bidder proposes 8 meter clear head room for the pipe/cable trestle at road crossings and 3 meter clear head room at all other areas except at road crossings.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
124	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	14 of 52	5.01.00 (iv)	The slurry recirculation pumps shall have motor driven knife gate valve at pump suction and discharge side.	Slurry recirculation pumps are not applicable to our offered system. The Gas Cooling pumps provided in our system shall have motor driven knife gate / butterfly valve.	HPGCL/NTPC clarified that the technology specific issues shall be discussed and resolved during detailed engineering.
125	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	18 of 52	5.06.06	.....The mist eliminator wash piping/header shall be constructed of rubber lined carbon steel or glass fiber reinforced plastics.....	Carbon steel pipe shall be selected for outside pipe up to the nozzles at Mist Eliminator casing. Inside the mist eliminator casing piping header shall be of FRP/CSRL/PP/PVC as per tender specification.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
126	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	20 of 52	5.06.23	In case of Spray Tower System, Suction screens shall be installed inside the Absorber vessel to protect the Slurry recirculation pumps. In case Bubbling type, suction strainers shall be installed at the suction line side of Gas Cooling Pumps. The Screens shall be made of made of Alloy 59 /C276 or abrasion resistant FRP/Polypropylene (in case Contractor/Collaborator has proven experience). For the agitators a flushing system for start ups shall be provided.	Bidder proposes to modify this clause as "In case of Spray Tower System, In case Bubbling type, suction strainers shall be installed at the suction line side of Gas Cooling Pumps. The Screens shall be made of Alloy 59 /C276 or abrasion resistant FRP/Polypropylene / SS316 L (in case Contractor/Collaborator has proven experience). .."	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder and any technology specific issues shall be discussed and resolved during detailed engineering.
127	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	30 of 52	8.04.00	All the slurry pumps shall be provided with motorized suction and discharge valves...	Bidder proposes to modify the clause as "All the slurry pumps shall be provided with motorized / pneumatic suction and discharge valve...."	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
128	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	34 of 52	12.02.00	All the pipes handling slurry shall be provided with replaceable rubber lining of proven quality. The Contractor can provide slurry pipes of size lower than 300 NB made up of FRP material (silicon carbide coating on slurry exposed surface) if it has if it has previous experience of providing the same. Outer surface of the pipes should be fire retardant.	Bidder proposes FRP as alternative material for all sizes of slurry (including limestone,gypsum slurry) pipes, please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
129	TECHNICAL SPECIFICATION SECTION-VI, PART-B	SUB SECTION –I-M1 (FGD)	14 of 52	5.01.00 B	B Bubbling Type Absorber In case the bidder offers an absorber..... Cooling Pump discharge piping and valves outside the flue gas path shall be in line with the requirements specified for slurry recirculation pumps.	Gas cooling pump discharge piping will be Carbon steel with rubber lining outside the flue gas path inline with technical specification requirements	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
130	SECTION – VI /PART-A	SUB-SECTION-III-B	4 OF 8	1.07.00	Bidder to provide air conditioned room to house variable frequency drive (VFD).	As per general engineering practice, bidder proposes to provide air conditioned room to house VFDs with rating above 100kW. VFDs below 100kW shall be located in non-airconditioned environment. Please confirm.	Refer Amendment.
131	SECTION – VI/ PART-A	SUB-SECTION-IV	3 OF 3	2.00.00	EXCLUSIONS	Bidder requests owner to specify electrical exclusions (if any).	Specification are clear in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
132	SECTION – VI /PART-B	SUB-SECTION-II-E4	4 OF 6	2.14.04	All Cables shall be armoured type.	Please note that cable that shall be applicable to FGD areas shall be laid in overhead trestle, hence is safe wrt mechanical protection. Bidder propose to use unarmoured cables in entire FGD area. However, If required, Armoured cables can be provided for Directly buried cables/ cables laid in trenches or if cables are laid in handling areas- Gypsum handling and limestone handling.	Bidder to comply specification requirements. The specifications are clear in this regard.
133	SECTION – VI /PART-B	SUB-SECTION-II-E4	4 OF 6	2.14.05	All LT power cables of sizes more than 120 sq.mm. shall be XLPE insulated and sizes shall be 1Cx150, 1Cx300, 1Cx630, 3Cx150 & 3Cx240 sq.mm. However for cable sizes upto 120 sq.mm. both XLPE insulated & PVC insulated LT power cables are acceptable.	Bidder request Employer not to restrict cables sizes to be used in line with mentioned sq. mm only. Bidder propose to include 3CX185 sq mm and 3CX300 also.	Bidder to comply specification requirements. The specifications are clear in this regard.
134	SECTION – VI /PART-B	SUB SECTION-II-E6	2 of 23	2.01.04	No sub zero level cable vault/trenches shall be provided below control building / switchgear rooms in main plant.	Bidder understands that this clause is applicable for main plant switchgear rooms and cable trenches can be considered in Gypsum / Limestone Handling System MCC Room/ FGD switchgear room / Control Room. Owner may please confirm.	Noted.
135	SECTION – VI /PART-B	SUB SECTION-II-E6	3 of 23	2.01.07	Two separate cable routes shall be provided for cable routing of working and standby drives or different set/group (say 50% capacity) of auxiliaries.	Bidder understands that referred clause (i.e. separate route) is applicable for Main incoming cable from Power House Building to FGD area. Within FGD internal area, separate route may not be feasible for redundant equipments.	Bidder to comply specification requirements. The specifications are clear in this regard.
136	SECTION – VI /PART-B	SUB SECTION-II-E6	3 of 23	2.01.08	Overhead cable tray arrangement shall be followed. However cable trenches/slit may also be acceptable, for some areas, if found to be required during detailed engineering.	Bidder understands the purchaser's cable trestle structure between Power House & FGD Area shall have space and load capability for fixing the bidder's cable tray (if required) for bidder's supplied cables. Bidder will not consider separate cable trestle structure between Power House & FGD Area. Please confirm.	Bidder to comply specification requirements. The specifications are clear in this regard. Further, bidder is advised to visit site and get himself acquainted with existing plant electrical system.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
137	SECTION – VI /PART-B	SUB SECTION-II-E6	11 of 23	4.04.13	Separation At least 300mm clearance shall be provided between: - HT power & LT power cables, - LT power & LT control/instrumentation cables,	We understand that this clause is applicable for horizontal configuration of cable trays only. Bidder proposes to provide spacing of 100 mm between different tiers of trays for vertical configuration. Please confirm.	Refer amendment issued in this regard. When vertical trays are arranged one above another, 100mm spacing shall be maintained between bottom of top and top of bottom tray. However, 300 mm spacing shall be maintained, when vertical trays are arranged side by side.
138	SECTION – VI /PART-B	SUB SECTION-II-E6	22 of 23	9.00.00 b) 1.	Separate Switchgear Rooms shall be provided for each unit.	Bidder propose to provide single switchgear cum control building for FGD as per feasibility. Please confirm.	Acceptable. Refer amendment issued in this regard.
139	SECTION- VI/ PART-B	SUB SECTION-II-E10	5 of 17	4.00.00 (6.)	LED Luminaires: LED Luminaires shall be used for the lighting of all the indoor & outdoor areas in bidder's scope. However for DC lighting, hazardous areas lighting etc. conventional type luminaires shall be used. In false ceiling area LED luminaires shall be recessed mounting type & in non-false ceiling area the LED luminaires shall be surface mounting type.	Above two clauses are contradictory. Bidder propose to use conventional light fitting also. LED can be used in areas with false ceiling. Employer to confirm	Bidder to comply specification requirements.
	SECTION – VI /PART-B	SUB-SECTION-II-E10	9 of 17	4.00.00 (16.)	All fluorescent lamps shall have "Cool day light" colour designation. The mirror optics type fluorescent fixtures shall have no iridescence effect. Fixtures with better efficiency and upgraded proven system may also be considered. Incandescent lamps may be used only with DC Lighting.		
140	SECTION – VI /PART-B	SUB-SECTION-II-E10	10 of 17	4.00.00 (17.)	Aviation warning lights shall be provided as per the recommendations of ICAO and Director general of civil aviation, India. The arrangement of light should be marked such that the object is indicated from every angle in azimuth. The aviation warning lighting system shall also conform to the latest Indian standard IS 4998	Bidder confirm compliance to ICAO and IS 4998. Accordingly, if separate chimneys are offered, Bidder will provide two level of medium-intensity type-B Aviation warning lights. Each level will have 4 lights each.	Bidder to comply specification requirements. This shall be decided during detailed engineering.
	Section-VI,Part-B	SUB-SECTION-III-C5	19 of 23	8.03.08(b)	Minimum 4 pair Instrumentation Cables shall be used for connection between field/JB and DDCMIS marshalling cabinet	Bidder understands that Fieldbus Trunk cable shall be as per IEC-61158 Type-A (i.e. single pair) specification	Bidder's understanding is correct

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
141	SECTION-VI,PART-B	SUB-SECTION-III-C5	2 of 3	1.05.00	Fieldbus cable (specifically used for Foundation Fieldbus/ Profibus PA and Profibus DP) shall be Individually shielded twisted pair, with round steel wired armour (SWA) complying to IEC 61158, Type A.	(i.e. single pair) specification. Accordingly, Instrumentation cables other than Fieldbus cables, shall be minimum 4 pair type for connection between field/JB and DDCMIS. Kindly confirm / clarify.	
142	SECTION-VI,PART-B	SUB-SECTION-III-C8	1 of 4	1.02.02	The interface of the Actuators with DDCMIS shall be of two type viz. with hard-wired interface & Fieldbus interface	Bidder understands that Clause No : 3.00.00 "Specific Requirement for Non-intrusive Hardwired Actuators " & Clause No : 4.00.00 "Specific Requirement for Non-intrusive Fieldbus Actuators " are applicable for above project. Bidder may propose either of the above. Kindly Clarify/Confirm	Bidder's understanding is not correct. Clause No : 3.00.00 "Specific Requirement for Non-intrusive Hardwired Actuators " are not applicable for this project. Please refer clause no. 12.00.00 , Sub Section -IIIC, Part-A in this regard.
	SECTION-VI,PART-B	SUB-SECTION-III-C8	3 of 4	3.00.00	Specific Requirement for Non Intrusive Hardwired Actuators		
	SECTION-VI,PART-B	SUB-SECTION-III-C8	3 of 4	4.00.00	Specific Requirement for Non Intrusive Fieldbus Actuators		
143	Section-VI,Part-B	SUB-SECTION-III-C2	2 of 40	2.00.00	Specification for Electronic Transmitters	Clause 2.00.00 states that Transmitter shall be HART Protocol Compatible .Whereas Clause 13.00.00 states that Transmitter shall have FOUNDATION Fieldbus/PROFIBUS PA based output. Bidder understand that either of the above option shall be considered for Electronic Transmitters. Kindly Clarify/Confirm	Bidder mat please refer 1.02.01 Sub Section -IIIC, Part-A in this regard.
	Section-VI,Part-B	SUB-SECTION-III-C2	37 of 40	13.00.00	Field Instruments based on Fieldbus		
144	Section-VI,Part-B	SUB-SECTION-III-C5	7 of 23	3.04.00	Triple/Dual measurement scheme shall be provided for triple/dual redundant sensors.....	Bidder understands that for critical parameters triple redundant instruments shall be considered for measurements. All other measurements shall have non-redundant instruments. Kindly confirm / clarify.	The specification is clear in this regard. Bidder to comply to the requirements of technical specification.
145	Section-VI,Part-B	SUB-SECTION-I-M6	39 of 41	6.11.00	Suitable MIMIC shall be provided in the PLC.	Bidder understand that the suitable LSU mimics shall be provided on OWS of the FGD DDCMIS. Kindly confirm / clarify.	Bidder's understanding is correct.
146	Section-VI,Part-B	SUB-SECTION-I-M1	21 of 52	6.02.00	Limestone Silo	Clause 6.02.01 states that each silo having Level switches & Clause 6.02.03 specify that each silo shall have minimum 2 Nos. of Level Transmitters . Bidder understand that 2 Nos. Level transmitters shall suffice the Technical requirements. Hence, separate level switches shall not be considered. Kindly confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
147	Section-VI,Part-B	SUB-SECTION-I-M6	11 of 41	2.7.3	Mounting of Zero Speed Switch shall be mounted at bend pulley of GTU	Bidder proposes that mounting of Zero Speed switch shall be at Tail Pulley instead of bend pulley as per standard practices to sense the proper belt speed . Kindly Confirm.	Bidder to comply with technical specification requirement
148	Section-VI, Part-B	SUB-SECTION -I-M1	26 of 52	7.04.09	Gypsum cake from each belt filter shall be discharged through a hopper onto belt conveyor being provided by the contractor.	Gypsum cake from the vacuum belt filter shall be directly feed to the dedicated belt conveyor through the chute. Hence, Hopper arrangement is not required. Owner to confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
149	Section-VI/Part-A	SUB SECTION –III-A5 LIME STONE AND GYPSUM HANDLING SYSTEM	3 of 7	2.01.01	Lime stone received through Road shall be unloaded by Two (2) numbers Truck Tipplers each of minimum 40T capacity (Gross weight 60 T minimum) to discharge Limestone on to Box Feeders/ Surface Feeders/ Truck Unloading Hopper, complete with all mechanical, electrical and C&I, civil & structural works for unloading Limestone by truck tipplers.	Please note that weighing bridge is required for weighing road truck of minimum 40T capacity (Gross weight 60 T minimum). Hence providing weighing bridge with capacity of 100 MT for road truck shall be higher side. So bidder has consider one (1) weighing bridge of capacity 60 MT. Owner is requested to confirm.	Bidder to comply with technical specification requirement
	Section-VI/Part-A	SUB SECTION –III-A5 LIME STONE AND GYPSUM HANDLING SYSTEM	5 of 7	2.01.28	Minimum one (1) no. Weighing Bridge of capacity 100 MT for Road trucks / Tipplers shall be provided each in Limestone unloading area and in Gypsum Loading area.		
150	Section-VI/Part-A	SUB SECTION –III-A5 LIME STONE AND GYPSUM HANDLING SYSTEM	3 of 7	2.01.04	..... Vibrating screening feeders..... accesoreis and supporting structure	a) As these clauses are contradicting regarding vibrating screen feeder or vibrating feeder, Bidder presumes that vibrating feeder to be considered. Owner is requested to confirm. b) Bidder request Owner to check that there is no requirement of vibrating feeder below the crusher.	The specifications are clear in this regard. Vibrating screen feeder shall be provided.
	Section-VI/Part-B	SUB SECTION –I-M6 LIME STONE AND GYPSUM HANDLING SYSTEM	28 of 41	1.7.0	Limestone feeding arrangement : Through vibrating screen feeder (However the crusher shall be designed/sized considering zero passage of limestone through screen).		
151	SECTION-VI, PART-A	SUB SECTION-III-A5 LIME STONE & GYPSUM HANDLING PLANT	3 of 07	2.01.00	Truck tipplers units each of minimum 40T capacity (Gross vehicle weight considered to be 60 T minimum) to discharge Limestone on.....conveyor onto limestone cruseher house	Bidder request Owner to furnish the various models, Make, capacity of the trucks/ self tipping trucks to be used to discharge limestone onto BRU. This is very much required to decide the arrangement of Box Feeders/ Surface Feeders with truck tippler and ramp arrangement.	Same shall be discussed with the successful bidder during the detail engg. stage.

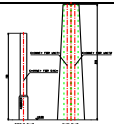
CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
152	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-II PROJECT INFORMATION	PAGE 3 OF 29	29 5.00.00		Please provide the detailed geological survey data.	Geological study has not been carried out. However, available geotechnical data has already been provided in the tender documents.
153	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-II PROJECT INFORMATION	PAGE 3 OF 29	TABEL 4		Please provide the CAD editable version of general layout drawing.	AUTOCAD drawing of General Layout Plan is shared with all prospective bidders through email by HPGCL.
154	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-III-A1 FGD SYSTEM	PAGE 2 OF 10	3.01.01	2×100% Limestone storage silos each having minimum 24 hours storage capacity equivalent to the requirements of all the units.	Please clarify : What's the exact capacity of the limestone silo?	Specification requirement are clear in this regard. Bidder to comply with the specification requirement.
	TECHNICAL SPECIFICATION SECTION-VI, PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-III-A5 LIMESTONE & GYPSUM HANDLING SYSTEM	PAGE 4 OF 7	2.01.09	Two (02) numbers of Limestone Storage Silos to store limestone equivalent to consumption of minimum 7 days at Design point (Generation of all units to be considered). The maximum capacity of each limestone storage silo shall not exceed 2000 MT.		
155	TECHNICAL SPECIFICATIONS SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-III-B ELECTRICAL SYSTEM/EQUIPMENT	PAGE 2 OF 8	1.05.02	I. 400kV AIS equipment: a) 400kV Equipment: Circuit Breaker, Isolator, Current transformer, Capacitor Voltage Transformer, Surge arresters, Bus Post Insulators etc.	Please clarify : Whether the transform of original 400kV standby switchgear and the extension to the 400kV distribution section belong to the bidder's scope.	Bidder to refer clause 1.05.00 of Sub-Section IIIB, part-A, Section-VI of Technical Specifications regarding the scope of supply of Switch Yard equipments.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
156	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC/ RGTPP/FGD-250	SUB-SECTION-III-C (C&I)	PAGE 1 OF 18	1.00.00	f) In this project fieldbus (FF/Profibus) based instruments(PT/DPT/TT),Fieldbus based Non-intrusive Electrical actuators are also envisaged which shall be connected to the DDCMIS. The protocol of fieldbus (FF/Profibus) for non-intrusive electric actuators and fieldbus based instruments shall be matching with fieldbus protocol of FGD System DDCMIS, and the same shall be subject to Employer's approval.	Please clarify the scope of Fieldbus equipments,which instrument devices need to use Fieldbus protocol.	Please refer clause no. 1.02.01 of sub-section III-C Part A of technical specifications in this regard.
157	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-III-C (C&I)	PAGE 8 OF 18	3.01.01	Flue Gas flow transmitter,vibration monitoring system (VMS) etc.	Please specify the measuring principle of flue gas flowmeter. Please clarify that if only 11kv high voltage motor should use vibration measuring devices.	(i) Measuring principle specified at clause no. 11.07.00, PART-B, sub-section-III-C2 (measuring instruments). (ii) The technical specification is clear on the applicability of VMS system.
158	TECHNICAL SPECIFICATION SECTION-VI,PART-A BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-V SALIENT DESIGN DATA	--	1.00.00-11	Chimney Height(m) Single flue 150,Twin flue 200	Is the meaning of the specification: Construct a wet chimney on the top of each absorber with 150m in height.Or jointly build a new chimney on the ground for two units, with 200m in height. Please confirm.	HPGCL/NTPC clarified that single flue or twin flue chimney shall be provided away from the absorber tower. Chimney at the top of the absorber tower is not permitted.
159	TECHNICAL SPECIFICATION SECTION-VI,PART-B BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB SECTION-II-E1GENERAL ELECTRICAL SPECIFICATION	PAGE 1 OF 8	1.06.00	c) Above 200 KW and upto 1500 KW:3 phase,3.3kV or 6.6kV AC d) Above 1500 KW:11 kV/6.6kV AC*	Please make it clear:What the voltage grade of the motors above 200kW adopt.	Bidder to refer Tender SLD for voltage level applicable for the project. Above 200 KW and upto 1500 KW:3 phase,3.3kV Above 1500 KW:11 kV
160	TECHNICAL SPECIFICATION SECTION-VI,PART-B BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	SUB-SECTION-VIII MASTER DRAWING LIST	--			Please provide the drawings which in the Master Drawing List.	HPGCL/NTPC clarified that the drawings listed under MDL shall be submitted for review by owner's engineers during detailed engineering.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
161	TECHNICAL SPECIFICATION SECTION-VI,PART-F BID DOC. NO.:CE/PLG/NTPC /RGTPP/FGD-250	TECHNICAL DATA SHEETS	--	--		Please provide the editable version of Technical Data Sheets.	HPGCL/NTPC clarified that tender documents can be provided in pdf version only.
162	Part A Section-VI Technical Specification	Sub-Section-V Silent Design Data	--	1.00.00 Sl.No.11	Chimney Height(m) Single Flue 150 Twin Flue 200 	Regarding Chimney height 150m for single flue and height 200m for twin flue, please clarify our understanding is right or not?	HPGCL/NTPC clarified that single flue or twin flue chimney shall be provided away from the absorber tower. Chimney at the top of the absorber tower is not permitted.
163	Part A, sec VI	Sub-Section-V Silent Design Data	Pg. 2 of 13,		Unit auxiliary power consumption (kW) for the complete scope of work for the project (max.) - 5700	Bidder understands the aux. power consumption limit is specified for one unit and not for the complete project. Kindly confirm.	Bidder's understanding is correct.
164	Part A, sec VI	Sub-Section-V Silent Design Data	Pg. 3 of 13,		2.01.05 For Titanium/C-276 lining, the top flue liner above the roof slab shall be made of solid C276 (ASTM B575, UNS N10276) / Titanium (Grade 2 as per ASME SB265) of minimum 10 mm thickness. 2.01.06 For Titanium/C-276 lining, external surface of chimney flue liner projecting over the chimney roof shall be wrapped with 2 mm thick Titanium / C-276 sheet over insulation.	The two clauses are contradictory. Kindly clarify.	HPGCL/NTPC clarified that both the requirement of technical specification shall be considered by the bidder.
165	Part A, sec VI	Sub-Section-VII FUNCTIONAL MANDATORY SPARES	Pg. 5 of 37,		Mandatory Spares List	Bidder presumes the list is for entire project and not per unit. Kindly confirm.	Bidder's understanding is correct where requirement is specified in fixed numbers. Bidder may also refer Clause 1.01.00 (b) of Subsection-VII Part A of the technical specification for clarity.
166	SECTION – VI, PART-A	SUB-SECTION-III-C	Page No 2/18	(C&I)-Cl. No. 1.02.01(C)-.	For Foundation Fieldbus & Profibus PA chicken foot/ branch/ or combination of both topology shall be provided. For Profibus DP, Bus/ Line topology in redundant mode shall be provided. That is, for Profibus DP redundant cables connected to redundant ports of devices shall be provided.	Confirmed for automation system except connectivity with the Non- redundant system. However bidder understand that VFDs, Package PLCs i.e. for Compressor will be connected with the DDCMIS system in non -redundant mode through Y-link/RLM module. Please confirm.	Confirmed for automation system except connectivity with the Non- redundant system. However bidder understand that VFDs, Package PLCs i.e. for Compressor will be connected with the DDCMIS system in non -redundant mode through Y-link/RLM module. Please confirm. In this package only PT/DPT/TT and Electrical actuators are fieldbus based. Therefore, VFDs and Package PLC connection with DDCMIS shall not be fieldbus based.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
167	SECTION – VI, PART-A	SUB-SECTION-III-C	Page No 5/18.	Cl. No. 2.05.00-	Data Communication System System Bus connecting Control System and HMIPIS. Other bus systems for connecting various systems/subsystems of DDCMIS like Cubicle Bus, Local Bus, I/O Bus (Including Remote I/O Bus) soft links (including those from Field Bus based temperature transmitter) as well as within systems/sub-systems of DDCMIS. All the bus systems shall be redundant except for back- plane buses which can be nonredundant.	Confirmed for automation system except connectivity with the Non- redundant system. However bidder understand that VFDs, Package PLCs i.e. for Compressor will be connected with the DDCMIS system in non -redundant mode through Y-link/RLM module. Please confirm.	Bidder's query w.r.t. specified clause is not clear. However, Bidder to comply the specification requirement.
168	SECTION – VI, PART-A	SUB-SECTION-III-C (C&I)-	Page No 8 & 9/18	Cl. No. 3.01.01(a) & (b)	Primary instruments like Microprocessor based transmitters employing HART/ Fieldbus protocol, thermocouples & RTDs along with temperature transmitters, pressure/diff.pessure/temperature/flo w (Ultrasonic/electromagnetic) transmitter & gauges, ----- -----However, for temp elements including bearing / winding temp of motors / pumps temp transmitters shall be provided.-----	Confirmed. However, In tender Drg no. 9944-250-POM-A-004 (P&I Diagram of ECW System) shown only TE instead of TT. Please check.	HPGCL/NTPC clarifies that Temperature transmitter is to be provided for all TE shown in the tender drawing. For further details Bidder to refer Part B of the technical specification.
169	SECTION – VI, PART-A	SUB-SECTION-III-C (C&I)-	Page 16/18.	No Cl. 13.00.00)- No.	Contractor shall provide control desk in CCR of each generating unit, of length 2 meter aesthetically matching with the existing control desk of main plant Central Control Room (CCR) for placing FGD OWS in main plant CCR.	Bidder requested to furnish existing control desk drawing of main plant control room to match aesthetically.	The requirements of technical specification is clear. Bidder to visit site for any additional information.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
170	SECTION – VI, PART-B	SUB-SECTION-III-C1-	Page No-3/4	CI No-3.04.00-	The equipment shall employ latest state of the art technology to guard against obsolescence. In any case, Bidder shall be required to ensure supply of spare parts for lifetime of the plant. In case, the Bidder feels that certain equipment/component is likely to become obsolete, the Bidder shall clearly bring out the same in his Bid and indicate steps proposed to deal with such obsolescence.	Generally confirmed. However bidder requested to client to modify this clause as the availability of spare parts for lifetime of the plant with respect to the current dynamic market situation of automation/instrumentation equipment is not possible and the same will be solely depends on the OEM supplier.	The specification is clear in this regard. Bidder to comply with the requirements of technical specification.
171	SECTION – VI, PART-B	SUB-SECTION-III-C2-	Page No-3/40	CI No-2.01.00-	SI No: 14-Accessories: For hazardous area, enclosure as described in NEC article 500	Bidder understand that FGD is a safe area so standard normal instruments shall be procured. Please confirm.	It shall be based on process requirement and Bidder to comply the specification requirement accordingly.
172	SECTION – VI, PART-B	SUB-SECTION-III-C2-	Page No-3/40	CI No-2.01.00-	SI No: 15- Certification: SIL 2 or Better	Bidder understand that FGD is a safe area so standard normal instruments shall be procured. SIL 2 Certification is not a mandatory requirement. Please confirm	Bidder to provide the SIL 2 or better instruments in line with specification requirement.
173	SECTION – VI, PART-B	SUB-SECTION-III-C2-	Page No-13/40	CI No-3.05.00-	SI No: 4- Electrical connection- Plug and Socket connector except hazardous area	Bidder understand that FGD is a safe area so standard normal instruments with plug and socket connector will be applicable only. Please confirm.	It shall be based on process requirement and Bidder to comply the specification requirement accordingly.
174	SECTION – VI, PART-B	SUB-SECTION-III-C2-	Page No-20/40	CI No-9.03.00-	Venturi (For Liquid applications Root valve type: Globe Type)	Bidder requested to accept full bore ball valve as root valve in addition to the globe type valve. Please confirm.	Bidder's request is not acceptable. Bidder to comply with the requirements of technical specification.
175	SECTION – VI, PART-B	SUB-SECTION-III-C2-	Page No-3/40	CI No-2.01.00-	SI No: 9-Accessories- -For hazardous area, enclosure as described in NEC article 5.	Bidder understand that FGD is a safe area so standard normal instruments shall be procured. Please confirm.	It shall be based on process requirement and Bidder to comply the specification requirement accordingly.
176	SECTION – VI, PART-B	SUB-SECTION-III-C3-	Page No-1/4	CI No-1.01.02-	The source shut-off (primary process root valve) and blow down valve shall be of 1/2 inch size globe valve type for all applications except for air and flue gas service wherein no source shut-off valves are to be provided.	Bidder requested to accept full bore ball valve as root valve in addition to the globe type valve. Please confirm.	Bidder's request is not acceptable. Bidder to comply with the requirements of technical specification.
177	SECTION – VI, PART-B	SUB-SECTION-III-C4-	Page No-10/13	CI No-8.05.00-	The cables emanating from redundant equipment/devices shall be routed through different paths.	Bidder requested that cables of redundant equipment/devices shall be routed in separate tray/conduit instead of non availability of different paths is also acceptable and the same shall be mutually finalized during engineering. Please confirm.	Bidder's understanding is correct.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
178	SECTION – VI, PART-B	SUB-SECTION-III-C5	Page No-8/23	CI No-3.07.00-	The maximum number of inputs/outputs to be connected to each type of module shall be as follows: 1 : Analog input module 16 2 : Analog output module 16 3 : Binary input module 32 4 : Binary output module 32 5 : Analog input & output (combined) module 16 6 : Binary input and output (combined) module 32	Bidder understand that no. of channels of input/output modules as specified is preferred but not bound to maintain the same. As per OEM's DDCMIS model, suitable IO card shall be used and the same shall be finalized during DE stage. Please confirm.	The maximum no. of inputs/ outputs for each module type has been specified. Bidder to comply the specification requirement.
179	SECTION – VI, PART-B	SUB-SECTION-III-C5	Page No-10/23	CI No-4.01.10-	Independent and dedicated controllers (main and its 100% standby) shall be provided for each of the functional group (FG) of Control System except for the cases where triple redundant controllers are to be used as per this specifications.	Bidder understand that triple redundant controller is not applicable for FGD system. Dual redundant controller (main and its 100% standby) shall be only applicable. Please confirm.	Bidder's understanding is correct and bidder to comply the specification accordingly.
180	SECTION – VI, PART-B	SUB-SECTION-III-C5	Page No-17/23	CI No-7.01.00-	The Data Communication System shall include a redundant System Bus for major subsystems with hot back-up. Other applicable bus systems like cubicle bus, local bus, I/O bus etc shall be redundant except for backplane buses which can be non-redundant. The system shall have the following minimum features	Confirmed for automation system except connectivity with the Non- redundant system. However bidder understand that VFDs, Package PLCs i.e. for Compressor will be connected with the DDCMIS system in non -redundant mode through Y-link/RLM module. Please confirm.	Bidder's query w.r.t. specified clause is not clear. However, Bidder to comply the specification requirement.
181	SECTION – VI, PART-B	SUB-SECTION-III-C5	-Page No-17/23	CI No-7.01.04	The redundant buses shall be physically separate and shall be routed separately.	Bidder requested that redundant cables shall be routed in separate tray/conduit in case of non- availability of different route is also acceptable and the same shall be mutually finalized during engineering. Please confirm.	The specification is clear in this regard. Bidder to comply to specification requirement.
182	SECTION – VI, PART-B	SUB-SECTION-III-C7	Page No-2/5	CI No-2.01.00-	All valves shall be of globe /Butterfly body design & straightaway pattern with single or double port, unless other- wise specified or recommended by the manufacturer to be of angle body type. Rotary valve may alternatively be offered when pressure and pressure drops permit	Bidder understand that globe/butterfly/rotary plug type valve is also acceptable for slurry line application. In Drg no. 9944-250-POM-A-001, Rev-A (Scheme of Absorber system), pinch type control valve is indicated on the drawing. Please clarify.	The specification is clear in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
183	SECTION – VI, PART-B	SUB-SECTION-III-C7	-Page No-3/4.	CI No-2.11.00	SIL CERTIFICATION: All actuators shall be certified for SIL 2 or better.	Bidder understand that FGD is a safe area so standard normal instruments shall be procured. SIL 2 Certification is not a mandatory requirement. Please confirm.	All actuators shall be certified for SIL 2 or better in line with specification. Bidder to comply the specification requirement.
184	SECTION – VI, PART-B	SUB-SECTION-III-C5	Page No-3/4.	CI No-1.01.06-Annexure-IIIC-5G-	HARDWARE REQUIREMENTS: SI No-2- Individual Monitors shall be supplied for all stations (except LVS OWS).	Bidder envisaged that LVS is not applicable for this project. Please confirm.	Bidder to comply to Part-A of technical specification in this regard.
185	SECTION – VI PART-E-Tender Drawings			Drg. No: 9944-250-POM-A-001-SCHEME OF FGD-ABSORBER SYSTEM	AP, PP legend shown on the drawing at the common outlet of Booster Fan.	Bidder requested to please clarify/indicate the details of this type of instrument.	AP (Analyser Test Pocket) and PP (Pressure Test Pocket)
186	SECTION – VI PART-E-Tender Drawings			Drg. No: 9944-250-POM-A-001-SCHEME OF FGD-ABSORBER SYSTEM	DPT shown on the drawing between inlet and outlet of Absorber.	Bidder understand that 2 nos of pressure measurement at the inlet and outlet of Absorber and indication of DP value through subtraction shall be available at DDCMIS HMI instead of using physical measurement of DPT due to impulse tube length constraint w.r.t absorber height is also acceptable. Please confirm.	Bidder to comply with the requirements of the tender drawing. Any such changes shall be discussed during detail engineering.
187	SECTION – VI PART-E-Tender Drawings			Drg. No: 9944-250-POM-A-001-SCHEME OF FGD-ABSORBER SYSTEM	Flow Transmitter-FT	Bidder understand that FT as shown in the drawing at the inlet of absorber in flue gas line & at the outlet of Absorber in flue gas line, Annubar/Sapbar/Krellbar type flow element is acceptable. Please confirm.	Bidder to comply with the requirements of the tender drawing.
188	General point				Make List	Bidder requested to furnish preferred make list.	HPGCL/NTPC requests bidder to refer to indicative vendor list.
189	Technical Specification Section-Vi PART-A	SUB-SECTION-III SCOPE OF SUPPLY & SERVICES	PAGE 6 OF 6	1.12.00	Bidder must comply for O & M for two (02) years with specified payment philosophy.	We will request you to consider the fact that Plant O&M comprises of very different nature of work compared to EPC job. Hence as an EPC company we request you to kindly exclude 2 years O&M from the EPC Bidder's scope. Please confirm	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
190	VI/A	III-A5	4 OF 7	2.01.16	Two (2) numbers of Conventional enclosure type passenger cum goods elevator Drawing no 9944-250-POM-A-005	The referred specification & Flow digram for number of elevator is Contradictory . Bidder will follow as per flow diagram (1 No elevator) for limestone crusher house	Bidder to provide Two (2) numbers of conventional enclosure type passenger cum goods elevator to serve vari-ous floors of limestone crusher house and Crushed Limestone Main storage Silo Bidder to refer Amendment in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
191	VI/A	III-A5	4 OF 7	2.01.17	Two (2) numbers of inline magnetic separators and four of suspended magnets (one no on each conveyer)c.....	For one stream conveyor providing 1 no Suspended magnet & 1 no ILMS which is not required since we can achieve removing iron particle either one type . We have considered ILMS only for each stream (LC 1A/1B)	Bidder to comply with technical specification requirement.
192	VI/A	III-A5	4 OF 7	2.01.14	one (1) No of limestone sampling unit etc	Client requested to furnish the sampling system specification completely since specification is not clear.We intent to propose mechanical sampler with cutter arrangement	IS 16143 (Par 2& 4)/ ASTM C50// ASTM D2013 shall be followed. Further Bidder to refer Section-VI,Part-B, Sub-Section-I-M6, DATA SHEET: LIMESTONE SAMPLING UNIT (Page 27 of 41)
193	VI/B	I-M 6	5 OF 41	4.04.00	Dust Extraction system Type : Venturi Scrubber Type Location : Lime crusher house , Storage Silo & Gypsum Shed	Venturu Scrubber type is not available market & Not proven design also for Lime stone application . Request Client to propose dry type pulse jet bag filter type .	DE system shall be dry type for Lime stone Handling and Gypsum Handling system. Bidder to refer Amendment in this regard.
194	Layout drawing					Kindly provide Autocad version of layout drawing.	AUTOCAD drawing of General Layout Plan is shared with all prospective bidders through email by HPGCL.
195	Section VI, Part-A	Sub Section -III-A1, FGD	4 of 10	4.01.11	All slurry recirculation pumps & Oxidation air blowers shall be installed in a shed with roof sheeting.....	We preassume that all slurry recirculation pumps and Oxidation blower shall be provided with roof sheeting and all sides open.	HPGCL/NTPC clarified that sufficiently extended roof sheeting shed to be provided so as not to allow rain water to enter inside. Also, the shed must be complete in all respect specially facilitating the smooth operation and maintenance of associated equipment's of above systems by providing adequate maintenance space, handling facilities, walkways, staircase etc.
196	Section VI, Part-A	Sub Section -III-A1, FGD	6 of 10	7.01.00	2x100% Mist eliminator pumps.....	We want to use process water pumps for Mist eliminator washing also tapping will be taken from the header. Hence, additional 4x100% Mist eliminator pumps are not required.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
197	Section VI, Part-A	Sub Section -III-A1, FGD	3 of 13	2.01.04	Alternatively, contractor can also provide chimney of 8mm thick mild steel with borosilicate lining of minimum 38mm thickness.....	As Borosilicate lining is provided we want to use RCC chimney as flue can. Borosilicate lining of 38mm thk will be applied directly on the RCC chimney and no flue can will be required. This will be optimum design. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
198	Section VI, Part-C	General Technical requirements	42 of 83	30.00.00	Noise level	Noise level for the equipments Lime stone Crusher will be 110dB. Compressor will be 90dB	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
199	Tech. specification section -VI Part -A	sub section III-D Civil works	pg. 2 of 3	Cl.no.2.0	Providing all arrangements for distribution of construction power at various locations	We request client to provide construction power at one location at free of cost.	All arrangements for distribution of construction power at various locations as per bidders requirement from the supply point of owner shall be in the scope of bidder, however, Construction power at one location will be provided by the owner free of cost.
200	Tech. specification section -VI Part -A	sub section III-D Civil works	pg. 2 of 3	Cl.no.2.0	Providing all arrangements for supply of Construction water incl. bore wells , water tankers et.,	We request client to provide construction water at one location at free of cost.	The provisions of bidding documents shall prevail.
201	TECHNICAL SPECIFICATION SECTION-VI PART-B	SUB SECTION-IV CIVIL WORKS	PAGE 23 OF 71	cl. No. 7.00.00	RCC Floors, Paving & Grade Slab details	We request client to provide details of locations where exactly the RCC paving is to be laid.	Details available in cl. No. 7.00.00. Bidder may refer the clause in this regard.
202	TECHNICAL SPECIFICATION SECTION-VI PART-B	SUB SECTION-IV CIVIL WORKS	PAGE 27 OF 71	cl. No. 12.00.00	ROADS - width 12m having 7.5m wide pavement & 2.25m wide shoulders on both sides	Please clarify the type of shoulder to be considered in our offer.	The raised shoulders (on both sides of the road) shall comprise of 75mm thick inter locking precast designer concrete blocks (M35 grade) at the top, over 20 mm thick sand layer. A 200mm diameter NP3 pipes shall carry the surface water from the road through a PCC drain trench (M20) on both sides of the roads to the drain. The pipes shall run over PCC (M 20) continuous cradle bedding. The pipes shall be laid at 10 metre centre to centre. A layer of 100 mm (average) thick PCC (M15) shall be laid over the pipes and below the sand layer. All roads shall be provided with edge protection on both sides of the road using pre - cast kerb blocks (450 mm long x 250 mm wide x 500 mm deep) (M25) laid in 1 (cement) : 6 (coarse sand) cement mortar.
203	Section-VI BID DOC.NO:CE/PLG/NTPC/RGTPP/FGD-250		Page 37 of 52 Part -B Sub-section-I-M1(FGD)	14.17.00	Inter-connecting pipes/cables between various facilities of FGD plant shall be routed on the steel trestles to be provided by the contractor.the clear head room for the same shall be minimum 8M.	We are considering Clear head room of pipe and cable racks as 2.30 mt from FGL except at road and rail crossings which is 7.0 mt . Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
204					Lime storage	Lime shall be stored in storage silos hence we are not envisaging any shed for lime storage.please confirm.	Please refer Clause 7.07.11 Subsection I-M1, Part-B of technical specification regarding requirement of storage room for lime.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
205					Site levelling and grading	We presume that the levelled and graded land shall be handed over by the owner. Only micro grading and levelling of +/- 200 mm shall be in bidder's scope. Please confirm.	Site levelling shall be done by Owner as per the levels specified in GLP in tender document. However, site clearance and minor grading as required is in bidder's scope.
206					Plot plan and contour map	We request client to provide Plot plan and contour map in auto cad version.	AUTOCAD drawing of General Layout Plan is shared with all prospective bidders through email by HPGCL. For other requirements, bidder is requested to visit site to obtain required data. Contour map not available.
207	Tender P&ID : Scheme of FGD- Absorber System (9944-250-POM-A- 001)				PH and Density measurement absorber sump	Density and PH measurement will be situated in recirculation line from gypsum bleed pumps to absorber. PH and Density measurement in the absorber sump not possible.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
208	Tender P&ID : Scheme of FGD- Absorber System (9944-250-POM-A- 001)				Draining of Absorber sump	From the experience of the Contractor, the valve has to be operated by hand on site.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
209	Tender P&ID : Scheme of FGD- Milling System (9944-250-POM-A- 002)				FGD-Milling System	The general scheme of milling system will be based on OEM standard and will be of proven type.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
210	Tender P&ID : Scheme of Gypsum Dewatering System (9944-250-POM-A- 003)				Filtrate flow back to Absorber	Flow will be controlled through frequency converter at filtrate pumps. Hence no control valve necessary.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
211	Tender P&ID : Scheme of Gypsum Dewatering System (9944-250-POM-A- 003)				Belt & Cloth washing pump from Filtrate tank	As per clause 7.04.07 of Part-B, Cake washing and Cloth washing will be clarified water only and not be filtrate water.	Please refer Notes 2 of the tender drawing for Scheme of Gypsum Dewatering System 9944-250-POM-A-003 in this regard.
212	Section VI, Part-B	Sub-section-I-M1 (FGD)	26 of 52	7.04.07	Cake washing and Cloth washing by Clarified water		
213	Tender P&ID : Scheme of FGD- Milling System (9944-250-POM-A- 002)				Filtrate for Mill and lime slurry preparation	In Tender P&ID : Scheme of FGD-Milling System (0011-109-POM-A-002) reference is made to Tender P&ID : Scheme of	HPGCL/NTPC clarified that piping shall be considered by the bidder from the discharge of filtrate water pumps in this regard.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
214	Section VI, Part-B	Sub-section-I-M1 (FGD)	34 of 52	13.01.00	The process water storage tank shall be designed to store 30 minutes of total max requirement of entire FGD process (incl. absorber system and mist eliminator washing system, limestone grinding and slurry preparation.....)	Gypsum Dewatering system (0011-109-POM-A-003) but on this P&ID there is no piping shown from the filtrate water pumps to the limestone slurry storage tank. Please clarify. Currently there is no connection from the filtrate water pumps to the limestone slurry storage tank considered. Only process water is considered for Wet ball mill and slurry preparation.	HPGCL/NTPC clarified that piping shall be considered by the bidder from the discharge of filtrate water pumps in this regard.
215	Section VI	Sub-section IV, Terminal points & Exclusions	1 of 3	1.03.00	Clarified water	Please clarify the terminal point for Clarified water.	Please refer Clause No. 1.05.00, Terminal points & Exclusions for Terminal point of Clarified water.
216	Section VI, Part-B	Sub-section-I-M1 (FGD)	17 of 52	5.06.02	Homogeneity shall be ensured, if the deviation from average is less than +10%	This requirement is too strict and cannot be met. Homogeneity shall be less than ±30%.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
217	Section – VI / Part B	Sub-section – I – M1	19 of 52	5.06.10	The raw gas inlet duct of the absorber shall be equipped with a flushing device of the side walls and the ground, which shall operate continuously as well as intermittently.	Continuous operation of inlet flushing is not possible because of water balance in the absorber.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
218	Section – VI / Part B	Sub-section – I – M1		7.08.06	Auxiliary Absorbent Tank Suction screens shall be installed to protect the pump	In the Absorber outlets the following screens are foreseen: at suction side of recirculation pumps, at suction side of gypsum bleed pumps, at suction site of absorber drain pumps. Hence, NO screen is foreseen at the suction side of the emergency slurry pump as there is already a screen at the absorber outlet.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
219	Section – VI / Part B	Sub-section – I – M1		10.01.00	Slurry & Process water Tanks ... Coarse screen(s) at suction-side of slurry pumps shall be provided	For the limestone slurry screens will be installed inside the Limestone slurry tanks on the suction side of the pumps. For the other Tanks (hydrocyclone feed tank) NO screens will be installed, as there are several screens on front of (for example at Absorber outlet on the suction side of gypsum bleed pumps). Please clarify if the above mentioned number and location of coarse screens are sufficient.	

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
220	Section VI	Sub Section I - M1	33 of 52	11.05.00	The material for the shaft (which is continuously in contact with slurry) and agitator blades of the Absorber Agitators shall be made with Alloy 926 or better material.	<p>Bidder clarifies that the shafts are made in Alloy 926, However Impellers are made of Super Duplex material with a PREN>40.</p> <p>The impellers of the side entry agitators are operating with much higher tip speeds (circumferential speed) compared to the impellers of the top entry agitators. Due to this high tip speeds the impellers are strongly affected by erosive wear. By the usage of the mechanically stronger and harder Super Duplex much longer lifetimes of the impellers can be achieved.</p> <p>Therefore the Super Duplex material is the better choice for the impellers.</p>	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
221	Section VI	Sub Section I - M1	15 of 52	5.02.00	In case the Contractor's Absorber includes side entry agitators, the contractor shall offer and demonstrate mixing arrangement such that n-1 number of agitators are sufficient to avoid the slurry settlement in the absorber tank in case of one agitator under breakdown (n-total no. of working agitators).	Bidder clarifies that the agitators will be desinged for (N-1) clause for a short duration occurs during maintenance of Agitators.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
222	Section VI	Sub Section I - M1	18 of 52	5.06.06	The headroom shall have a height of more than 2200 mm.	Noted, The headroom of 2200 mm mentioned for Mist eliminator is based on Roof type arrangement;	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
223	Section VI	Sub Section I - M1	20 of 52	5.06.20	Minimum distance of 1.5 m shall be maintained between individual spray levels.	However bidder clarifies that minimum headroom of 1500 mm will be provided (Similar to Spray bank header distance) for flat type Mist eliminator design.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
224	Section VI	Sub Section I - M1	18 of 52	5.06.06	The mist eliminator support beams shall be designed to act as maintenance walkways approximately 300 mm wide.	<p>Noted, The walkway of 300 mm wide mentioned for Mist eliminator is based on Roof type arrangement;</p> <p>However bidder clarifies that there will not be any specific walkway & the complete mist eleminator modules shall be used for handling / walking for flat type Mist eliminator design.</p>	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
225	Section – VI / Part A	Sub-section – V		2.01.04	The chimney flue liner cladding shall be made of 2 mm thick Titanium (Grade 2 as per ASME SB265) or C-276 alloy....	The Bidder proposes wall papering with Alloy of minimum 2 mm thickness instead of cladding for chimney (only if applicable)	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
226	Section – VI / Part B	Sub-section – I – M1	6 of 52	3.02.04	The duct from Absorber outlet to bypass duct shall be made of Carbon steel of minimum 7 mm thickness clad with 2 mm (minimum) thickness Alloy C276 / Alloy 59 or better material	The Bidder proposes wall papering with Alloy of minimum 2 mm thickness instead of cladding.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
227	Section – VI / Part B	Sub-section – I – M1	19 of 52	5.06.11	The complete absorber vessel (absorber oxidation tank, absorber tower & absorber outlet upto absorber outlet flange) shall be made of clad sheet of C276 / alloy 59 (min 2mm thk) by explosion bonding or hot rolling having min 7mm Carbon steel as base material.	The Bidder proposes wall papering with Alloy of minimum 2 mm thickness instead of cladding.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
228	Section – VI / Part B	Sub-section – I – M1	17 of 52	5.06.06	Three stage ME made of polysulphone or stainless steel....	We recommend ME made of PP (Polypropylene) as per manufacturer's standard and proven practice and which are installed in many FGD plants around the world and performing well.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
229	Section – VI / Part A	Sub-section – V	4 of 13	2.02.00 (ii)	(ii) Minimum 1:12 scale physical flow model for liquid collector design	Bidder proposes to conduct only CFD analysis and no Physical Scale Model is required. Client to kindly accept the proposal.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
230	Section – VI / Part B	Sub-section – I – M1	17 of 52	5.06.06	The mist eliminator wash piping / header shall be constructed of rubber lined carbon steel or glass fiber reinforced plastics.	We recommend wash piping / header made of PP as this is the proven practice of the Contractor. Client to kindly accept the proposal.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
231	Section – VI / Part B	Sub-Section – I – M1	16 of 52	5.03.00	Oxidation nozzles / spargers shall have a minimum redundancy of 10% or as per the contractor's proven practice whichever is maximum.	Please note that we are supplying lance type oxidation air system (one (1) lance for each agitator). 10% margin on oxidation air nozzle is not applicable for our design. Hence, please confirm that the margin for oxidation nozzles will be applicable as per bidder design standard.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.
232	Section – VI / Part B	Sub-Section – I – M1	20 of 52	5.06.18 (iv)	A flushing device of the spray levels with water shall be installed. Flushing shall take place if spray levels are out of operation	A flushing device is installed at the recirculation pipe. This will also flush the spray bank after shut down. Hence separate flushing device is not installed.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

CLARIFICATION TO TECHNICAL SPECIFICATION (SECTION VI)

S. NO.	SPECIFICATION REFERENCE				SPECIFICATION REQUIREMENT	BIDDER'S QUERY	HPGCL/NTPC CLARIFICATION
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
233	SECTION-VI /PART-B	SUB-SECTION-I-M1	36 OF 52	14.09.00	Handling Equipments :- 500 KG and Above :- Motorized hoist above 50KG to 500KG :- Manual Hoist	As a general practice we shall consider Manual hoist for < 3000kg and lift of < 6M Electrica Hoist for >3000Kg. Please confirm.	HPGCL/NTPC clarified that specification requirement shall be considered by the bidder.

**FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
RGTPP, HISAR (2X600 MW)
AMENDMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-03**

S.N	Reference			For	Read as
	Section	Clause	Page		
1.	SECTION-II,ITB	4.1(7.(iii)	2 of 34	Bank Guarantee Form for Advance Payment in case of Contract awarded to Joint Venture (Not Applicable)	Bank Guarantee Form for Advance Payment in case of Contract awarded to Joint Venture
2.	SECTION-IV, GCC	13.2.1	15 of 69	The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the advance payment for supply of Plant & Equipment and 110% of the advance amount for Installation Services and Civil & Allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, and in the currency or currencies of the Contract, with an initial validity of up to ninety (90) days beyond the schedule date of Completion of the last facility covered under the package in accordance with GCC Clause 24. However, in case of delay in completion of the facilities under the package, the validity of this security shall be extended by the period of such delay.	The Contractor shall, within twenty-eight (28) days of the Notification of Award of Contract, provide a security in an amount equal to the 110% of the advance payment for supply of Plant & Equipment and 110% of the advance amount for Installation Services and Civil & Allied Works calculated in accordance with Appendix 1 (Terms and Procedures of Payment) to the Contract Agreement, and in the currency or currencies of the Contract, with an initial validity of up to ninety (90) days beyond the schedule date of Completion of the last facility covered under the package in accordance with GCC Clause 24. However, in case of delay in completion of the facilities under the package, the validity of this security shall be extended by the period of such delay.
3.	SECTION-V, SCC	Item No. 20 First Line	2 of 2	GCC Clause 13.2 Advance payment security – Not applicable	Please delete the line.

**FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
RGTPP, HISAR (2X600 MW)
AMENDMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-03**

S.N	Reference			For	Read as
	Section	Clause	Page		
4.	SECTION-VII, Book 3 of 3 TABLE OF FORMS AND PROCEDURES	7 (iii)		7(iii). Bank Guarantee Form for Advance Payment in case of contract awarded to Joint Venture - (NOT APPLICABLE)	7(iii). Bank Guarantee Form for Advance Payment in case of contract awarded to Joint Venture.
5.	SECTION-VII, Book 3 of 3 TABLE OF FORMS AND PROCEDURES	15		Form of Joint Venture Agreement - (NOT APPLICABLE)	Form of Joint Venture Agreement
6.	SECTION-VII, Book 3 of 3	APPENDIX – 1 to forms of contract agreement- TERMS AND PROCEDURES OF PAYMENT			Please replace the appendix-1 with the revised appendix- Appendix-I (Rev-01) attached as Annexure-I to this document.
7.	SECTION-VII, Book 3 of 3	Form 6(a) Performance Security Form			Please replace the format as attached at Annexure-II
8.	SECTION-VII, Book 3 of 3	Form 7(i) Bank Guarantee Form for Advance Payment (For Supply FOB/Ex-Works)			Please replace the format as attached at Annexure-III

**FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE FOR
RGTPP, HISAR (2X600 MW)
AMENDMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250- Amdt-03**

S.N	Reference			For	Read as
	Section	Clause	Page		
9.	SECTION-VII, Book 3 of 3	Form 7(ii) Bank Guarantee Form for Advance Payment (For Installation Services/Civil Works/Structural Works)			Please replace the format as attached at Annexure-IV
10.	SECTION-VII, Book 3 of 3	Form 7(iii) Bank Guarantee Form for Advance Payment			Please replace the format as attached at Annexure-V
11.	SECTION-VII, Book 3 of 3	FORM OF JOINT VENTURE/CONSORTIUM AGREEMENT			Please replace the format as attached at Annexure- VI

TERMS AND PROCEDURES OF PAYMENT

In accordance with the provisions of GCC Clause 12 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the Price Break down given in the Price Schedules. Payments will be made in the currencies quoted by the Bidder unless otherwise agreed between the parties. Application for payment in respect of part deliveries may be made by the Contractor as work proceeds.

TERMS OF PAYMENT**A. Schedule No.1 : Plant and Equipment (excluding Mandatory Spares Type Tests) quoted on CIF (Indian Port-of-entry) basis**

In respect of Plant and Equipment (excluding mandatory spares) supplied from abroad the following payments shall be made : -

A1. For FOB Price Component of Plant and Equipment (excluding Mandatory Spares and Type Test):

- (I) **Ten (10%)** of the total FOB price component as Initial Advance Payment on :
- a. Acceptance of Notification of Award(s) and Signing of the Contract Agreement(s).
 - b. Submission of an unconditional Bank Guarantee covering 110% of the advance amount, which shall be initially kept valid upto (ninety) 90 days beyond the schedule date for successful Completion of the Facilities under the Package. However, in case of delay in completion of facilities, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.
 - c. Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
 - d. In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate/Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.
 - e. Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
 - f. Finalization of Master Drawing List (MDL).

- (II) **Sixty Percent (60%)** of FOB price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on:
- a. production of invoices and satisfactory evidence of shipment (which shall be original Bill of Lading) including Material Despatch Clearance Certificate (MDCC) issued by the Employer's Corporate QA & I representative.
- (III) **Twenty Percent (20%)** of the total FOB price component of the Contract Price for each identified equipment shall be paid progressively on pro-rata basis on installation of the equipment and certification by the Project Manager of to this effect.
- (IV) **Ten Percent (10%)** of FOB price component of the Contract price on Successful Completion of Performance Guarantee Tests of entire FGD System Package and issuance of Operational Acceptance Certificate by the Project Manager for the Units (5 percent for each unit of the plant).

Note: (1) The basis for pro-rata payment at (II) and (III) above shall be the billing break-up, to be mutually discussed and agreed upon.

- (2) (i) In case Installation Price (excluding Civil/Structural works price) is less than **15%** of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from the FOB & Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.

(If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date, set for submission of Price bids shall be considered for the purpose of computing installation percentage /retention amount).

- (ii) In case the Civil Works Price (including Site Fabricated Structural works price) is less than **32%** of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from the FOB & Ex-Works component of Contract price while releasing payments due on dispatch of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of Civil Works including Structural works (if any) corresponding to the respective equipment and its certification by the Project Manager.

(If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date set for submission of Price bids shall be considered for the purpose of computing Civil Works percentage /retention amount).

A2

Ocean Freight and Marine Insurance Charges (excluding Mandatory Spares parts) for equipment covered above :

One Hundred percent (100%) Ocean Freight and Marine Insurance charges covered in Schedule-1 shall be paid upon shipment of equipment on pro-rata basis to the FOB

price of the equipment shipped. The aggregate of all such pro-rata payments shall not exceed the total amount identified in the contract. However, whenever equipment wise Ocean Freight and Marine Insurance charges have been identified in the contract, the payment of Ocean Freight and Marine Insurance Charges shall be based on such charges identified in the contract against shipment of equipment.

B. Schedule No. 2 : Plant and Equipment (excluding Mandatory Spares & Type Tests) quoted on Ex-works (India) basis :

In respect of Plant and Equipment supplied from within the Employer's country the following payment shall be made :

B1. For Ex-works Price component of Plant and Equipment (excluding Mandatory Spares and Type Test):

- (I) **Ten Percent (10%)** of the total Ex-works price component as Initial Advance Payment on:
 - (i) Acceptance of Notification of Award and Signing of the Contract Agreement.
 - (ii) Submission of an unconditional Bank Guarantee covering 110% of the advance amount, which shall be initially kept valid upto (ninety) 90 days beyond the schedule date for successful Completion of the Facilities under the Package. However, incase of delay in completion of facilities, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section-VII - Bank Guarantee Form for Advance Payment.
 - (iii) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts (including the Contracts entered into with the Contractor's Assignee, if applicable in case of Foreign Contractor), and submission by the Assignee (if applicable in case of Foreign Contractor) of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts entered into with the Assignee, all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However in case of delay in Defect Liability Period, the validity of these Bank Guarantees shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
 - (iv) In case Deed(s) of Joint Undertaking by the Contractor alongwith his Associate form part of the contract, then submission of unconditional Bank Guarantee from such Associate towards faithful performance of the Deed of Joint Undertaking for the amount specified in the respective Deed of Joint Undertaking and valid upto ninety (90) days after end of Defect Liability Period of all equipment covered under the contract. The proforma of Bank Guarantee shall be as enclosed in Section-VII-Form of Bank Guarantee by Associate.
 - (v) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.

- (II) **Sixty Percent (60%)** of Ex-Works Price component of the Contract price for each identified equipment shall be paid progressively on pro-rata basis upon receipt of material and physical verification at site on prorata basis on:
- (a) production of invoices and satisfactory evidence of shipment which shall be original Good Receipt/Rail Receipt including Material Despatch Clearance Certificate (MDCC) issued by the Employer.
- (III) **Twenty Percent (20%)** of the total Ex-works price component of the Contract Price for each identified equipment shall be paid progressively on pro- rata basis on installation of the equipment and certification by the Project Manager to this effect.
- (IV) **Ten Percent (10%)** of Ex-works price component of the Contract price on Successful Completion of Performance Guarantee Tests of entire System and issuance of Operational Acceptance Certificate by the Project Manager for the Units (5 percent for each unit of the Plant).

- Note: (1) The basis for pro-rata payment at (II) and (III) above shall be the billing break-up, to be mutually discussed and agreed upon.
- (2) (i) In case Installation Price (excluding Civil/Structural works price) is less than **15%** of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from the FOB & Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.
- (If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date set for submission of Price bids shall be considered for the purpose of computing installation percentage /retention amount).
- (ii) In case the Civil Works Price (including Site Fabricated Structural works price) is less than **32%** of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is lower shall be retained proportionately from the FOB & Ex-Works component of Contract price while releasing payments due on dispatch of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of Civil Works including Structural works (if any) corresponding to the respective equipment and its certification by the Project Manager.
- (If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date set for submission of Price bids shall be considered for the purpose of computing Civil Works percentage /retention amount).

C. Schedule 1, 2 and 6 : Payment Terms for Mandatory Spares and Recommended Spares (When ordered)

The CIF price component of spares to be supplied from abroad and Ex-works price component of spares to be manufactured or fabricated within the Employer's country shall be paid as under : -

- (i) Eighty percent (80%) of CIF/Ex-works(India) price component of the spares :

upon receipt and storage at site and on physical verifications by the Project Manager and against invoices and shipping documents along with Material Despatch Clearance Certificate (MDCC) issued by the Employer.

- (ii) Twenty(20%) of CIF/Ex-works(India) price component of the spares : on Successful Completion of Performance Guarantee Tests of entire FGD System and issuance of Operational Acceptance Certificate by the Project Manager.

D. Schedule No. 3 : Local Transportation

(a) All Plant and Equipment excluding Mandatory spares

One hundred Percent (100%) Local Transportation (including port clearance and port charges, and inland insurance charges) for the equipment covered in Schedule-1 and Schedule-2 shall be paid to the Contractor pro-rata to the value of the equipment received at site and on production of invoices by the Contractor. The aggregate of all such prorata payments shall, however, not exceed the total amount identified in the Contract for Local Transportation. However, wherever equipment wise local transportation charges (including insurance charges, Port clearance and Port charges) have been furnished by the Contractor, the payment shall be made after receipt of equipment at site based on the charges so identified in the Contract.

The above terms of payment shall be applicable for Foreign currency portion as well as Local currency portion of the Local Transportation component of the Contract Price, if any.

(b) Mandatory Spares & Recommended Spares (if ordered)

Hundred Percent (100%) Local Transportation (including inland insurance, port clearance and port charges) for the spares shall be paid to the Contractor pro-rata to the value of spares received at site and on production of invoices by the contractor. The aggregate of all such prorata payments shall, however, not exceed the total amount identified for the Contract of Local Transportation. However, wherever itemwise local transportation charges (including insurance charges, Port clearance and Port charges) have been furnished by the Contractor, the payment shall be made after receipt of spares at site based on the charges so identified in the Contract.

The above terms of payment shall be applicable for Foreign currency portion as well as Local currency portion of the Local Transportation component of the Contract Price, if any.

E. Schedule No. 4: Installation Services

(a) Erection Portion (of Plant and Equipment)

The Installation Services component shall be paid as under:

- (l)(A) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be paid to the Contractor as **interest bearing** advance payment on:
 - (i) Acceptance of Notification of Award(s) and Signing of Contract Agreement(s).

- (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of the Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
 - (iii) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
 - (iv) In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate/Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.
 - (v) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
 - (vi) Establishing their office at site preparatory to mobilisation of their erection establishment.
 - (vii) Advance Payment for Installation services price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.
 - (viii) In case the Contractor decides not to take interest bearing advance payment, the first progressive payment for Installation services price component shall be released after certification of Engineer-in- Charge that the Contractor has brought to site the safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.
- (I)(B) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be further paid to the Contractor as **interest bearing** advance payment on:
- (i) Fulfilment of conditions mentioned at E(a)(I)(A) (i) to (viii)above.
 - (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay.
 - (iii) T&P Mobilization as identified along with PERT network for start of Erection and

Certification thereof by the Engineer-in-Charge.

- (iv) Placement of order(s) on sub-contractor(s) for Installation works (Site erection) and submission of copy of work order(s) duly accepted by Sub- Contractor(s) to the Employer.

(I)(C) The recovery of the interest component on the above advance amount shall be made from the progressive payments released to the contractor as per clause E(a)(II) below. The amount of interest to be recovered from a particular bill shall be calculated @ **12.20%** per annum on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the Contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payment (i.e. in the progressive payment indicated at E(a) (II) and (III) below).

- (II) **Seventy Percent (70%)** of the Erection Portion of installation Services component of contract price (excluding Civil & Structural works) will be made on pro-rata basis against progressive erection of the equipment on:
 - a) Certification by the Project Manager for the quantum of work completed and by the Project Manager's field quality assurance & surveillance representative for the successful completion of quality check points involved in the quantum of work billed.

Note: The release of first progressive payment for installation services shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.
- (III) (a) **Five Percent (5%)** of installation Services Component of contract price (excluding Civil & Structural works) on Completion of the Facilities including all associated auxiliaries and ancillary works for the First Unit & common facilities and issue of Completion Certificate by the Project Manager for the Unit.
- (b) **Five Percent (5%)** of installation Services Component of contract price (**excluding** Civil & Structural works) on Completion of the Facilities including all associated auxiliaries and ancillary works for the Second unit and issue of Completion Certificate by the Project Manager for the Unit.
- (IV) (a) **Five Percent (5%)** of installation Services Component of contract price (excluding Civil & Structural works) on successful Completion of Performance Guarantee Tests for the First unit & common facilities and issue of Operational Acceptance Certificate by the Project Manager for the Unit.
- (b) **Five Percent (5%)** of installation Services Component of contract price (excluding Civil & Structural works) on successful Completion of Performance

Guarantee Tests for the Second Unit and issue of Operational Acceptance by the Project Manager for the Unit.

Note: The basis for the pro-rata payments above shall be the Billing Break up to be finalised subsequently after award of contract.

In case the Installation Price (excluding Civil/Structural works price) is more than 20% of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on installation of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities.

(If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date set for submission of Price bids shall be considered for the purpose of computing installation percentage /retention amount).

E (b) Civil Works Portion (including construction materials but Excluding Cost of Structurals)

The Civil & Allied Works Price Components of the Contract Price shall be paid as under:

- (I)(A) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be paid to the Contractor as **interest bearing advance** payment on:
- (i) Acceptance of Notification of Award(s) and Signing of Contract Agreement(s).
 - (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
 - (iii) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
 - (iv) In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate/Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.
 - (v) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.

- (vi) Establishing their office at site preparatory to mobilisation of their erection establishment.
 - (vii) Advance Payment for Installation services price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.
 - (viii) In case the Contractor decides not to take interest bearing advance payment, the first progressive payment for Installation services price component shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.
- (I)(B) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be further paid to the Contractor as **interest bearing** advance payment on:
- (i) Fulfilment of conditions mentioned at E(b) (I)(A) (i) to (viii) above.
 - (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay.
 - (iii) T&P Mobilization as identified along with PERT network for start of Erection and Certification thereof by the Engineer-in-Charge.
 - (iv) Placement of order(s) on sub-contractor(s) for Installation works (Site erection) and submission of copy of work order(s) duly accepted by Sub- Contractor(s) to the Employer.
- (I)(C) The recovery of the interest component on the above advance amount shall be made from the progressive payments released to the contractor as per clause E(b) (II) below. The amount of interest to be recovered from a particular bill shall be calculated **@ 12.20%** per annum on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the Contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.
- In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payment (i.e. in the progressive payment indicated at E(b) (II) and (III) below).**
- (II) **Seventy percent (70%)** of the total Civil Works Price Component shall be paid progressively on

- (a) certification by the Project Manager for the quantum of work completed and certification by the Project Manager's Field Quality Surveillance representative for the successful completion of quality check points involved in the quantum of work billed.
- (b) Acceptance of Notification of Award(s) and Signing of Contract Agreement(s).
- (c) On certification of the Engineer-in-Charge that the contractor has established their office at site and mobilised the plant and equipment specifically identified in Letter of Award (LOA / NOA) of the Contract.
- (d) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts (including the Contracts entered into with the Contractor's Assignee, if applicable in case of Foreign Contractor), and submission by the Assignee (if applicable in case of Foreign Contractor) of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts entered into with the Assignee, all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
- (e) In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate / Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract.
However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.
- (f) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (g) On certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

Note: The release of first progressive payment for civil works shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

- (III) (a) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful Completion of the Facilities of the First unit and issuance of Completion Certificate by the Project Manager for the Unit.

- (b) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful Completion of the Facilities of the second Unit and issuance of Completion Certificate by the Project Manager for the Unit.
- (IV) (a) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful completion of Performance Guarantee Test of the First unit and issuance of Operational Acceptance Certificate by the Project Manager for the Unit.
- (b) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful completion of Performance Guarantee Test of the second unit and issuance of Operational Acceptance Certificate by the Project Manager for the Unit.

Note: The basis for the pro-rata payments above shall be the Billing Break up to be finalised subsequently after award of contract.

E. (c) Structural works portion, including cost of materials, fabrication & erection

The Structural Works Price Component of the Contract Price shall be paid as under:

- (I)(A) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be paid to the Contractor as **interest bearing** advance payment on:
 - (i) Acceptance of Notification of Award(s) and Signing of Contract Agreement(s).
 - (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII.
 - (iii) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
 - (iv) In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate/Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.
 - (v) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
 - (vi) Establishing their office at site preparatory to mobilisation of their erection establishment.

- (vii) Advance Payment for Installation services price components shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.
- (viii) In case the Contractor decides not to take interest bearing advance payment, the first progressive payment for Installation services price component shall be released after certification of Engineer-in-Charge that the Contractor has brought to site the safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

(I)(B) **Five Percent (5%)** of the total installation services component of the Contract Price (excluding Civil Works & Structural Works) will be further paid to the Contractor as **interest bearing** advance payment on:

- (i) Fulfilment of conditions mentioned at E(c)(I)(A) (i) to (viii) above.
- (ii) Submission of an unconditional Bank Guarantee for an **amount equivalent to 110% of Advance amount**, which shall be initially kept valid upto ninety (90) days beyond the schedule date for successful 'Completion of the Facilities' under the Package. However, in case of delay in completion of facilities the validity of this advance Bank Guarantee shall be extended by the period of such delay.
- (iii) T&P Mobilization as identified along with PERT network for start of Erection and Certification thereof by the Engineer-in-Charge.
- (iv) Placement of order(s) on sub-contractor(s) for Installation works (Site erection) and submission of copy of work order(s) duly accepted by Sub- Contractor(s) to the Employer.

(I)(C) The recovery of the interest component on the above advance amount shall be made from the progressive payments released to the contractor as per clause E(c)(II) below. The amount of interest to be recovered from a particular bill shall be calculated @ **12.20%** per annum on the value of advance corresponding to the %age of total progressive payment being released. The period for which the interest is to be calculated shall be reckoned from the date of release of the advance payment to the actual date of release of the said progressive payment or the expiry of the stipulated time frame for release of such progressive payments under the Contract, whichever is earlier. The interest on the advance payment shall stand fully recovered on release of all the progressive payments. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for interest on the advance payment and other sums deductible therefrom, the balance outstanding shall be recovered from the next payments immediately falling due.

In case the contractor decides not to take interest bearing advance payment, the advance payment shall be proportionately adjusted in the balance payments excluding final payment (i.e. in the progressive payment indicated at E(c)(II) and (III) below).

(II) **Seventy Percent (70%)** of the total Civil Works Price Component shall be paid progressively on:

- (a) certification by the Project Manager for the quantum of work completed and certification by the Project Manager's Field Quality Surveillance representative for the successful completion of quality check points involved in the quantum of work billed.
- (b) Acceptance of Notification of Award(s) and Signing of Contract Agreement(s).

- (c) On certification of the Engineer-in-Charge that the contractor has established their office at site and mobilised the plant and equipment specifically identified in Letter of Award (LOA / NOA) of the Contract.
- (d) Submission by the Main Contractor of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts (including the Contracts entered into with the Contractor's Assignee, if applicable in case of Foreign Contractor), and submission by the Assignee (if applicable in case of Foreign Contractor) of an unconditional Bank Guarantee(s) towards Performance Security(s) in respect of all Contracts entered into with the Assignee, all initially valid upto ninety (90) days after the end of Defects Liability Period of all equipment covered under Contract. However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee is enclosed in Section-VII-Form of Performance Security.
- (e) In case Deed of Joint Undertaking by the Contractor alongwith his Associate/Collaborator forms part of the Contract then submission of an unconditional Bank guarantee from such Associate / Collaborator towards faithful performance of the Deed of Joint Undertaking for an amount specified in the deed and initially valid upto ninety (90) days after the end of Defect Liability Period of all equipment covered under the Contract.

However, in case of delay in Defect Liability Period, the validity of this Bank Guarantee shall be extended by the period of such delay. The proforma of Bank Guarantee(s) shall be as enclosed in Section-VII.

- (f) Submission of a detailed PERT Network based on the work schedule stipulated in Appendix-4 to Form of the Contract Agreement and its approval by the Employer.
- (g) On certification of Engineer-in-Charge that the Contractor has brought to site the Safety equipments & Safety Personal Protective Equipments as per minimum quantity specified in the Bidding Documents.

Note: The release of first progressive payment for civil works shall also be subject to submission of documentary evidence by the Contractor towards having taken the insurance policy(ies) in terms of relevant provisions of GCC Clause 34 (Insurance) and acceptance of same by the Project Manager.

- (III) (a) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful Completion of the Facilities of the First unit and issuance of Completion Certificate by the Project Manager for the Unit.
- (b) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful Completion of the Facilities of the second Unit and issuance of Completion Certificate by the Project Manager for the Unit.
- (IV) (a) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful completion of Performance Guarantee Test of the First unit and issuance of Operational Acceptance Certificate by the Project Manager for the Unit.

- (b) **Five Percent (5%)** of total Civil Works Price component of Contract price shall be paid on successful completion of Performance Guarantee Test of the second unit and issuance of Operational Acceptance Certificate by the Project Manager for the Unit.

Note: The basis for the pro-rata payments at Sl. No. (III) above shall be the Billing Break up to be finalised subsequently after award of contract

Note for Para E. (b) & E. (c)

In case the Civil Works Price (including Site Fabricated Structural Works Price) is more than **42 %** of the cumulative total of FOB & Ex-works Price of Main Equipment, the amount by which it is higher shall be retained while releasing progressive payments due on completion of civil works (including Site Fabricated Structural works), and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities.

(If Prices are quoted in foreign currency then SBI Bills Selling exchange rate as on the date set for submission of Price bids shall be considered for the purpose of computing Civil Works percentage /retention amount).

F. Payment terms for Price Adjustment Amount

Contract shall be on firm price basis.

G. Schedule - 7 : Payment Terms for Taxes & Duties

- i) Indian Custom Duties or levies including Stamp Duty and Import License Fee levied by the Government of India or any State Government in India on the Plant and Equipment including Mandatory Spares supplied from abroad (covered in Schedule-1) and on recommended spares (when ordered) supplied from abroad and covered in Schedule No.6, which are to be imported into India and which will become the property of the Employer, shall be paid directly by the Employer to the Government of India or the concerned authorities. However, if the local laws require such payment of the custom duty/ GST to be made by the Contractor, the same shall be reimbursed to the Contractor on production of satisfactory evidence of having paid the custom duty amount to the concerned authorities.
- ii) Notwithstanding the above, if the Contractor chooses to ship the equipment in Shipper's Containers, then the custom duty levied on such empty Containers shall not be borne by the Employer and shall be borne and payable/reimbursable by the Contractor. Further, Anti-dumping duty, Countervailing duty on subsidised articles, Safeguard duty etc. and any other tax including GST, levies, cess etc. applicable on such additional duties, if imposed on Plant and Equipment including Type Test and Mandatory Spares/ Recommended Spares, shall be borne by the Contractor.
- iii) 100% of applicable Taxes and Duties (other than the custom duty & GST payable as in para (i) above) which are payable by the Employer under the Contract shall be paid/reimbursed to the Contractor or Assignee of foreign Contractor (if applicable) upon receipt of equipment/spares/services and on production of satisfactory documentary evidence by the Contractor/Assignee, as applicable. However, GST as applicable on Advance payment(if applicable) shall be paid to the Contractor along with the Advance sanctioned. The GST paid along with advance shall be adjusted prorata against the tax due upon supply of goods/services, based on the value of the respective goods/services.

H. Schedule-8A/8B (as applicable) Payment Terms for Type Test Charge:

100% of each Type Test Charges shall be paid to the Contractor upon conductance of the corresponding Type Test and Certification by the Engineer thereon.

- I. **Payment Terms for O&M Contract:** Details for O&M Service may be referred to in Technical Specification. O&M including supply of all spares for 2 years will be in bidder's scope. Payment for O&M charges will be paid in each year on monthly basis.

Note:

- 1) In case the Contractor is a non resident/foreign company, the release of first progressive payment shall also be subject to submission of certificate/Ruling determining the applicable rate of Income Tax in terms of relevant provisions of GCC clause on Taxes & Duties and acceptance of same by the Engineer-in-Charge.

PAYMENT PROCEDURES

The Procedures to be followed in making application for, certifying and making payments shall be as follows :

1. Payment Schedule/Price Break-up for Payments

- 1.1 The Contractor shall prepare and submit to the Project Manager for approval, a break-up of the Contract Price in the currencies of the Contract. It is expected that the Contractor shall indicate the price of a single item in one currency only. However, if the Contractor intends to receive payment for some items in more than one currency, the Contractor would be required to furnish a separate breakup and payment for such items shall be made based on the agreed rates. The Contract Price break-up shall be interlinked with the agreed detailed PERT network of the Contract setting forth starting and completion dates for the various key phases of the Facilities. Any payment under the Contract, subsequent to Advance payment(if applicable), shall be made only after the Contractor's price break-up is approved by the Employer. The aggregate sum of the Contractor's price break-up shall be equal to the total Contract Price.
- 1.2 The Billing Breakup for Mandatory Spares shall be submitted to the Employer for approval as per the format enclosed as Annexure-1 to this Appendix indicating therein the details such as Make, Model number, Drawing/Datasheet number and Part number of all spare items. The relevant drawings/documents shall be submitted along with the Billing Break up.
- 1.3 The Contractor shall, by the 15th April of every year, furnish the BBU value of supplies sourced from Micro and Small Enterprises (MSEs) along with the total BBU value of supplies dispatched by it during the preceding financial year as per the format enclosed as Annexure-2 to this APPENDIX-1.

2. Currency of Payment

- 2.1 The Contract Price shall be paid in the currency or currencies in which the various price components have been stated and as incorporated in the Contract.

3. Application for Payment

- 3.1 The Contractor shall submit application for the payment in the proforma enclosed. The Contractor shall submit to the Project Manager separate application for payment in different currencies whenever payment is to be made in more than one currency.
- 3.2 Each such application shall state the amount claimed and shall set forth in details, the order of the Payment Schedule, particulars of the Facilities including the Facilities executed at Site and of the equipment shipped/brought on to the Site pursuant to the Contract upto the date mentioned in the application and for the period covered since the last preceding certificate, if any.
- 3.3 Every interim payment certificate shall certify the Contract Value of the Facilities executed upto the date mentioned in the application for the payment certificate, provided that no sum shall be included in any interim payment certificate in respect of the Facilities that according to the decision of the Project Manager, does not comply with the Contract, or has been performed, at the date of certificate prematurely.

4. Due Dates for Payment

- 4.1 The advance payment amount(if applicable) shall be payable after fulfilment of all the conditions laid down in the Terms of Payment (Appendix 1 to the Contract Agreement) and receipt of the Contractor's invoice alongwith all necessary supporting documents for such advance payment(if applicable). Employer will make progressive payment as and when the payment is due as per the Terms of Payment set forth in Appendix 1 to the Contract Agreement. Progressive payment other than that under the letter of credit will become due and payable by the Project Manager within forty five (45) days from the date of receipt of Contractor's bill/invoice/debit note by the Employer, provided the documents submitted are complete in all respects.

5. Mode of Payment

- 5.1 The Employer will establish an irrevocable Letter of Credit (L/C) in favour of the Contractor through the Employer's Bank in Employer's country for payments due, as per Terms of Payment, on despatch of equipment i.e. Ex-works/CIF despatch of equipment and spares (including due payments towards ocean freight and marine insurance). The value of L/C will be as per payment schedule for each quarter and valid for a quarter. It will be the responsibility of the Contractor to utilise the L/C to the fullest extent. In case L/C has been established by the Employer and not utilised by the Contractor, for reasons of delay attributable to him, all reinstatement charges for the L/C for further period necessitated due to non-utilisation of L/C will be to the account of the Contractor.
- 5.2 The payment of the advance amount(if applicable), Type Test Charges if any, price adjustment amounts, all other supply payments, taxes and duties (wherever admissible) inland transportation (including port handling if any) insurance and the Installation Portion of the Facilities shall be made direct to the Contractor by the Employer and no L/C shall be established by the Employer for such payments. Wherever technically feasible, such payments shall be made electronically only as per details of Bank Account indicated in the contract, the contractor shall immediately inform the employer. The Contractor shall hold the employer harmless and employer shall not be liable for any direct, indirect or consequential loss or damage sustained by the bidder on account of any error in the information or change in Bank details provided to the employer in the prescribed form without information to employer duly acknowledged.

6.0 For payments related to Erection/ Civil/ Structural works

- (i) The Contractor shall maintain a separate account with a Scheduled Bank at Site for the purpose of receiving all the payments under the Contract(s) and for utilization of payments received from the Employer for disbursement to sub-contractors, sub-vendors, PRW's etc., of the Contractor. The Contractor shall maintain separate books of accounts for all payments under this Contract and the Project Manager shall have access to these at all times.

(ii) Account Tracking Mechanism

In case the Contractor wants to withdraw funds from the above bank account for any purposes other than the Contract, he shall be required to submit an undertaking to the Project Manager certifying that all due statutory payments, labour payments and payments to all his sub-contractors have been disbursed corresponding to the total payment received by him under the Contract.

For tracking of payments received from the Employer, the Contractor shall also submit a monthly statement by 7th of every month certifying the transactions pertaining to the above account along with the purpose of such transactions. In case the Contractor transfers funds for any purposes other than the Contract, without prior consent of the Employer, it will constitute a breach of Contract by the Contractor.

- (iii) In case the Contractor violates the above provisions, EMPLOYER will have the right to give suitable instructions to the Bank to regulate/ freeze the account.

FORM OF APPLICATION FOR PAYMENTS

Project :

Equipment Package : Date :

Name of Contractor : Contract No. :

Contract Value : Contract Name :

Unit Reference : Applicable Serial Number :

To.

.....*

(Name of Employer)

Dear Sir

APPLICATION FOR PAYMENT #

1. Pursuant to the above referred Contract Agreement dated..... the undersigned hereby applies for payment of the sum of (Specify amount and currency in which claim is made).
2. The above amount is on account of : (check whichever applicable)
 - Advance payment (Schedule **)
 - Interim payment as advance (Schedule **)
 - Progressive payment against despatch of equipment (Schedule **)
 - Progressive payment against receipt of equipment (Schedule **)
 - Progressive payment against Installation (Schedule **)
 - Ocean freight & marine insurance (Schedule **) Inland transportation (Schedule **)
 - Inland Insurance
 - Price adjustment
 - Extra work not specified in contract (Ref. Contract change order No.....)
 - Others (specify)
 - Final payment (Schedule **)

as detailed in the attached schedule(s) which form an integral part of this application.

3. The payment claimed is as per item(s) No.(s)..... of the payment schedule annexed to the above mentioned Contract.

4. The application consists of this page, a summary of claim statement (Schedule **), and the following signed schedules

1

2

3

The following documents are also enclosed : 1

.....

2

3

Signature of Contractor/
authorised Signatory

* Application for payment will be made to 'Project Manager' as to be designated for this purpose at the time of Notification of Award.

Prepare separate application for claims in different currencies.

** Proforma for the Schedules will be mutually discussed and agreed to during the finalisation of the Contract Agreement.

Annexure-2 to APPENDIX-1

Proforma for details to be furnished by the Contractor by 15th April of every financial year of supplies sourced from MSEs dispatched during the preceding financial year.

Package Name:

Project Name:

Name of the

Contractor: COA No.:

Details of BBU value of supplies dispatched during the preceding financial year are furnished here below:

BBU value of total supplies dispatched (A) (in eqvt INR)	Out of the total supplies dispatched, BBU value of supplies sourced from MSEs (B) (in eqvt INR)	Percentage of supplies sourced from MSEs wrt total supplies dispatched (C = B*100/A) (%)
.....

In case of no supplies sourced from MSEs, mention 'NIL'.

I, on behalf of M/s (*Contractor*) hereby declare that the information furnished above is correct.

Signature.....
 Name.....Des
 ignation and Seal.....

Annexure-3 to Appendix-1, Section-VII, Book 3 of 3

(To be executed on Non- Judicial Stamp Paper of Appropriate Value)

ESCROW AGREEMENT

ESCROW AGREEMENT (hereinafter referred to as this "**Agreement**") is entered into on this the ___ day of _____ 20__ at _____.

BETWEEN:

M/S _____ a Company incorporated under the laws of _____ and having its principal place of business at _____ (hereinafter referred to as the "**Employer**", which expression shall, unless it is repugnant to the subject or context thereof, include its successors and assigns) of the **FIRST PART**;

AND

M/S _____ a Company incorporated under the laws of _____ and having its principal place of business at _____ (hereinafter referred to as the "**Contractor**", which expression shall, unless it is repugnant to the subject or context thereof, include its successors, transferees and permitted assigns) of the **SECOND PART**;

AND

M/S _____, a body corporate incorporated under the laws of India and a banking company within the meaning of Section 5 (c) of the Banking Regulation Act, 1949 (10 of 1949) and having its registered office at _____ in its capacity as the Escrow Agent for the Contractor (hereinafter referred to as the "**Escrow Bank**", which expression shall, unless it be repugnant to the subject or context thereof, include its successors and permitted assigns) of the **THIRD PART**.

The Employer, the Contractor and the Escrow Bank are individually referred to as "**Party**" and collectively as "**Parties**".

WHEREAS:

- A. The Employer vide IFB No. _____ dated _____ ("**Tender**") had invited bids for _____ ("**Package**") for _____ ("**Project**").
- B. Accordingly, the said "Contractor", submitted its bid in response to the above mentioned NIT.
- C. Pursuant to the IFB and the bid submitted by the Successful Bidder / Contractor, the Employer issued the Notification of Award dated _____ bearing no. _____

Annexure-I

(“**Notification of Award**”) and executed Contract Agreement Reference No. _____ dated _____ (hereinafter called Contract).

- D. In terms of Clause _____ of the Contract/ General Conditions of Contract/ Special Conditions of Contract, the Contractor is required to open and maintain separately an Escrow Account with the Escrow Bank.
- E. The Contractor have approached _____ Bank to act as an escrow agent and the _____ Bank has agreed to act as the Escrow Bank under this Escrow Agreement; and
- F. Accordingly Parties are desirous of executing this Escrow Agreement to set out the manner and procedure for operation of the escrow account and other matters in connection therewith.
- G. All payments due under the Contract related to Erection/Civil/Structural works will be released by the Employer to the Contractor in the Escrow Account. The Contractor is required to make payment to suppliers of goods and services, statutory authorities, establishment expenses etc. as may be required in the successful performance of the Contract.
- H. The Contractor is required to utilise the money collected in the Escrow Account in accordance with the waterfall mechanism set out in this Agreement.
- I. In view of the aforesaid, the mutual covenants, and understandings setforth herein, the Parties wish to enter into this Agreement for setting out the terms and conditions to deal with all payments in accordance with the requirements set out in the Bid Document.

NOW, THEREFORE, in consideration of the premises herein set forth and other good and valid consideration, the receipt and adequacy of which are hereby expressly acknowledged, the Parties with the intent to be legally bound hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 DEFINITIONS

In this Agreement the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereafter respectively assigned to them.

Applicable Law means all applicable statutes, laws, by – laws, rules, regulations, orders, ordinances, protocols, codes, guidelines, policies, notices, directions, judgments, decrees or other requirements or official directive of any governmental authority or court or other law, rule or regulation, approval from the relevant governmental authority, government resolution, directive, or other government restriction or any similar form of decision of, or determination by, or any interpretation or adjudication having the force of law in India.

Business Day means a day other than a Sunday or a bank holiday on which banks are normally open for business during banking business hours in Panchkula, India.

Contractor shall have the meaning as ascribed to it in Second Part

Employer shall have the meaning as ascribed to it in First Part.

Escrow **Account shall mean the account in the name and style of “ _____ ” opened and maintained by the Contractor in terms of Section-V, Clause as Special Conditions of Contract No. 47 (General Condition of Contract Clause No. 12) with the Escrow Bank and operated in terms of this Escrow Agreement.**

Escrow Agreement shall mean this agreement, together with the schedules hereto, as may be amended, modified or supplemented from time to time, in accordance with its terms.

Escrow Bank shall have the meaning as ascribed to it in Third Part.

Notification of Award shall have the meaning as ascribed to it in Recital C.

Package shall have the meaning as ascribed to it in Recital A.

Project shall have the meaning as ascribed to it in Recital A.

Tender shall have the meaning as ascribed to it in Recital A.

1.2 PRINCIPLE OF CONSTRUCTIONS

In this Agreement, unless the context otherwise requires:

- (a) reference to an Account includes a reference to any sub – account of that Account;
- (b) reference to an "amendment" includes a supplement, modification, novation, replacement or re-enactment and "amended" is to be construed accordingly;
- (c) a reference to "authorization" includes an authorization, consent, clearance, approval, permission, resolution, license, exemption, filing and registration;
- (d) a reference to "control" includes the power to direct by contract or otherwise;
- (e) unless the context otherwise requires, the singular includes the plural and vice versa;
- (f) a reference to a Schedule is, unless indicated to the contrary, a reference to a schedule to this Agreement;
- (g) the words "other", "or otherwise" and "whatsoever" shall not be construed *ejusdem generis* or be construed as any limitation upon the generality of any preceding words or matters specifically referred to;
- (h) references to the word "includes" or "including" are to be construed without limitation;
- (n) all references to agreements, documents or other instruments include (subject to all relevant approvals) a reference to that agreement, document or instrument as amended, supplemented, substituted, novated or assigned from time to time;
- (o) any reference to a public organization shall be deemed to include any successor to such public organization or any organization or functions or responsibilities of such public organization;
- (p) "year" "month" and "day" wherever used in this Agreement imply that of English calendar;
- (q) words and abbreviations, which have, well known technical or trade / commercial meanings are used in the Agreement in accordance with such meanings;
- (r) A reference to times and dates in this Escrow Agreement are references to times and dates in India.
- (s) Any date or period as set out in any clause of this Escrow Agreement may be extended with the written consent of the Parties.
- (t) The Schedules form an integral and operative part of this Escrow Agreement and references to this Escrow Agreement shall include references to the Schedules.

2. APPOINTMENT OF ESCROW BANK

Each of the parties acknowledges that the Escrow Bank has been appointed under this Escrow Agreement and that it shall discharge its functions in accordance with the terms of this Escrow

Annexure-I

Agreement. Escrow Bank hereby accepts the escrow arrangement hereby declared and provided upon the terms and conditions set forth in this Escrow Agreement.

3. ESTABLISHMENT OF THE ACCOUNTS

The Contractor has established with the Escrow Bank an account with its branch, the details of which are provided in **Schedule – II** hereto, titled the "_____Account". The Contractor acknowledges and agrees that it shall maintain the Escrow Account.

4. OPERATING PROCEDURES

The Employer, the Contractor and Escrow Bank, have prior to execution of this Agreement agreed on the detailed terms and conditions and Operating Procedures for the Escrow Account (as set out in **Schedule – III**), provided however, in the event of any inconsistency between this Agreement and such mandates, terms and conditions or procedures, this Agreement shall prevail.

Based on the request from the Contractor, the Employer will approve the list of suppliers of goods and services, statutory authorities, establishment expenses etc. to whom payments could be made and the same shall be shared with the Escrow Bank from time to time.

All transfers and payments pursuant to this Agreement shall be in a manner consistent with the operating procedures.

The Escrow Bank shall submit to the Employer the usage of monies withdrawn from the Escrow Account together with a monthly statement from the Escrow Bank evidencing receipt and withdrawal of funds into and from the Escrow Account.

The Employer shall be entitled to verify the usage of funds withdrawn from the Escrow Account. At any time the Employer is entitled to seek an account statement from the Escrow Bank and such evidence of usage of funds by the Contractor from the Escrow Account as required by the Employer.

5. OBLIGATIONS OF THE CONTRACTOR

Nothing contained in this Agreement shall affect the obligations of the Contractor under the Bid Documents or Contract Agreement as set out above.

The Contractor shall simultaneously deliver a copy to the Employer of any notice or document delivered to the Escrow Bank pursuant to this Agreement.

6. ESCROW BANK SERVICE CHARGES AND EXPENSES

The Contractor shall pay, on demand, all the usual and customary service charges, transfer fees, account maintenance, account acceptance, statement, investigation, funds transfer and any other charges as are levied by the Escrow Bank as mutually agreed and such other out of pocket expenses as are claimed by the Escrow Bank (collectively, the "**charges**") in connection with the Escrow Account. In addition the Contractor has agreed to pay one-time bank escrow service charges of Rs. _____ plus applicable service tax. Contractor shall deposit the one-time bank escrow service charges in to the Escrow Account within three Business Days of the opening of the Escrow Account and/ or shall deposit the charges from time to time of such demand by the Escrow Bank. In the event Contractor fails to make the timely payment to the Escrow Bank of the one-time bank escrow service charges and/or the charges, the Escrow Bank shall have the right to withdraw such amounts from the Escrow Account as is necessary for the

Annexure-I

payment of the one-time bank escrow service charges and charges, in which case Contractor shall replenish the Escrow Account with such amounts equivalent to the amounts withdrawn by the Escrow Bank within ____ Business Days of such withdrawal.

7. ESCROW BANKS'S DUTIES AND LIABILITIES

- 7.1** The Escrow Bank shall have only those duties, obligations and responsibilities expressly specified in this Escrow Agreement and shall have no duties, obligations or responsibilities which are implied or inferred by law or otherwise.
- 7.2** The duties of the Escrow Bank under this Escrow Agreement are purely ministerial, administrative and non-discretionary in nature. Neither Escrow Bank nor any of its directors, officers, agents and employees shall, by reason of anything contained in this Escrow Agreement, be deemed to be a trustee for or have any fiduciary relationship with the parties. Where the Escrow Bank has acted in accordance with this Escrow Agreement, it shall be deemed to have acted as if instructed to do so by the Employer
- 7.3** The Escrow Bank shall not be required to expend or risk any of its own funds or otherwise incur any liability, financial or otherwise, in the performance of any of its duties under this Escrow Agreement.
- 7.4** The Escrow Bank shall not be precluded by virtue of this Escrow Agreement (and neither shall any of its directors, officers, agents and employees or any company or persons in any other way associated with it be precluded) from entering into or being otherwise interested in any banking, commercial, financial or business contacts or in any other transactions or arrangements with the parties or any of their affiliates provided such transactions or arrangements are not contrary to the provisions of this Escrow Agreement.
- 7.5** The Escrow Bank shall not be bound or affected, in its capacity as Escrow Bank, in any way by the Agreement or any agreement or contract between Parties to which the Escrow Agent is not a party. The Escrow Bank, in its capacity as an escrow bank, is deemed not to have any knowledge of any provision of the Agreement or any other document unless the substance of such provisions is explicitly set forth in this Escrow Agreement. The Escrow Bank shall not in any way be required to determine whether or not the terms and conditions of the Agreement or any other agreement or contract between the Parties to which the Escrow Bank is not a party have been complied with. Furthermore, the Escrow Bank is deemed not to have any knowledge or notice of any fact or circumstance not specifically set forth in this Escrow Agreement.
- 7.6** The Escrow Bank may, in good faith, accept and rely on any notice, instruction or other document received by it under this Escrow Agreement as conclusive evidence of the facts and of the validity of the instructions stated in it and as having been duly authorised, executed and delivered and need not make any further enquiry in relation to it. The Escrow Bank may act in conclusive reliance upon any instrument or signature believed by it, acting reasonably, to be genuine and may assume, acting reasonably, that any person purporting to give receipt, instruction or advice, make any statement, or execute any document in connection with the provisions of this Escrow Agreement has been duly authorised to do so. The Escrow Bank shall be under no duty to inquire into or investigate the validity, accuracy or content of any such document.
- 7.7** The Escrow Bank shall not be liable to any person for any losses arising out of or in connection with the performance or non-performance of its obligations under this Escrow Agreement, except to the extent directly resulting from the wilful default or gross negligence of the Escrow Bank.

Annexure-I

- 7.8** The Escrow Bank may execute any of its powers and perform any of its duties under this Escrow Agreement directly or through appointed agents or attorneys.
- 7.9** 'Force Majeure Event' means any event (including but not limited to an act of God, fire, epidemics, natural calamities; riots, civil commotion or unrest, terrorism, war, strikes or lockouts; expropriation or other governmental actions; any changes in applicable law or regulation including changes in market rules, currency restrictions, devaluations or fluctuations; market conditions affecting the execution or settlement of transactions or the value of assets; and breakdown, failure or malfunction of any telecommunication and information technology systems beyond the control of any Party which restricts or prohibits the performance of the obligations of such Party contemplated by this Agreement.
- The Escrow Bank shall not be held liable for any loss or damage or failure to perform its obligations hereunder, or for any delay in complying with any duty or obligation, under or pursuant to this Agreement arising as a direct or indirect result of any Force Majeure Event.
- 7.10** The Escrow Bank may at its cost, consult with, and obtain advice from its lawyers or professional advisers over any question in relation to, and its duties under this Escrow Agreement. The Escrow Bank shall not incur any liability for taking any action or omitting any action in accordance with such advice.
- 7.11** The Escrow Bank does not have any proprietary or other interest in the Escrow Account, but is to serve as escrow holder only and having only possession thereof.
- 7.12** The Escrow Bank shall not be liable or responsible for obtaining any regulatory or governmental or other approval in connection with or in relation to the transactions contemplated herein and shall not be in any manner obliged to inquire or consider whether any regulatory or governmental approvals have been obtained.
- 7.13** The Escrow Bank shall not be obliged to supervise, control or perform any acts or responsibilities of the First Party or the Second Party or any other third party.
- 7.14** Any act to be done by the Escrow Bank shall be done only on a Business Day, during banking business hours, at _____, India and in the event that any day on which the Escrow Bank is required to do an act, under the terms of this Escrow Agreement, is a day on which banking business is not, or cannot for any reason be conducted, then the Escrow Bank shall do those acts on the next succeeding Business Day.
- 7.15** The Escrow Bank is under no duty to ensure that funds withdrawn from the Escrow Account are actually applied for the purpose for which they were withdrawn; neither the Escrow Bank nor any of its officers, employees or agents shall be required to make any distribution to the extent that the Escrow Amount is insufficient and shall incur no liability whatsoever from any non-distribution in such circumstances.
- 7.16** The Parties agree that the Escrow Bank shall not be, in any way, responsible or liable to the other Parties or any third person whosoever, for deduction or withholding of any taxes in relation to the transaction for which the Escrow Account has been established pursuant hereto and the contractor acknowledge and confirm that they shall be solely and absolutely liable for any and all deductions or withholdings and payments of taxes, levies, cesses and all other statutory dues in relation thereto. The Contractors confirm that they shall be, jointly and severally, liable for payment of all stamp duties payable in relation to this Agreement as well as any other instruments

Annexure-I

executed pursuant hereto and the Escrow Bank shall not be responsible or liable for the same, under any circumstances.

7.17 The Parties agree that Escrow Bank is acting in its capacity as an escrow agent only and shall not be deemed to act as an investment, legal or tax adviser to the Parties in the performance of its obligations under the Escrow Agreement.

7.18 Notwithstanding what is stated herein, in no event shall the Escrow Bank be liable for incidental, indirect, special, punitive or consequential damages caused to the Parties.

8. NOTICE OF BREACH

The Escrow Bank to the best of its knowledge undertakes to the Employer that it shall notify the Employer of any breach by the Contractor of any of the provisions of this Agreement.

9. INDEMNITY

The Contractor shall indemnify and keep indemnified the Parties for any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses, claims or disbursements of any kind or nature whatsoever which may be imposed upon, incurred by or asserted against the Parties in any way in connection with or arising out of the negotiation, preservation or enforcement of any rights under, or in carrying out its duties under this Agreement, other than those arising as a result of the Escrow Bank's gross negligence or willful default.

The Contractor shall indemnify and keep indemnified the Escrow Bank for any and all liabilities, obligations, losses, damages,

- (a) acting upon any request sent by facsimile, if such facsimile was found to be sent in an unauthorized manner; or
- (b) not acting upon any request if such facsimile was sent but not received by the concerned person of the Account Bank.

The obligations of the Contractor under this Agreement to indemnify and keep indemnified the parties shall survive the satisfaction, discharge or other termination of this Agreement and the resignation or removal of the Escrow Bank under this Agreement.

10. CONFIDENTIALITY

No Party may except as permitted by this Escrow Agreement, make public or disclose to any person any information about this Escrow Agreement.

The Obligations under this clause shall survive the termination or expiry of this agreement.

11. ASSIGNMENT

Save as provided in Clause ___ of the General Conditions of the Contract of the Employer, the Contractor shall not assign or transfer any part of their respective rights or obligations under this Agreement without the prior consent of the Employer, provided that this shall not prevent Employer from assigning or transferring its rights under this Agreement.

Nothing in this Agreement shall give to any other Person (other than the Parties hereto and their successors and permitted assigns) any benefit or any legal or equitable right or remedy under this Agreement.

This Agreement shall be binding on and shall inure to the benefit of the Parties hereto and the respective successors and permitted assigns.

12. NOTICES

All notices or other communications to be given under this agreement shall be made in writing to:

For the Employer:

(Name of the Employer)_____

Attention
Address

(Designation of Employee)_____

-----.

Fax No.
Tel No.

For the Contractor:

(Name of the Contractor)_____

Attention
Address

(Designation of Employee)_____

-----.

Fax No.
Tel No.

For the Escrow Bank:

(Name of the Escrow Bank)

Attention
Address

(Designation of Employee)_____

-----.

Fax No.
Tel No.

Change of Address

Any Party may by notice change the addresses and / or addresses to which such notices and communications are to be delivered or mailed. Such change shall be effective when all the Parties have written notice of it.

14. WAIVER

No failure or delay on the part of the Employer in exercising any right, power or privilege hereunder or under Contract shall impair any such right, power or privilege or operate as a

Annexure-I

waiver the Employer would otherwise have. No notice to or demand on the Contractor in any case shall entitle the Contractor to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the Employer to any other or further action in any circumstances without notice or demand.

15. SEVERABILITY

If any provision of this Agreement is held invalid, unenforceable or illegal, the offending provision shall be severed from this Agreement and the remaining parts of this Agreement shall remain in full force and effect.

16. AMENDMENTS

No amendment to this Agreement shall be binding unless in writing and signed by the Parties.

17. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with Indian laws.

18. DISPUTE RESOLUTION

All the disputes shall be settled as per HPGCL rules and regulations. In case dispute or disagreement relating to this Contract arises during the contract/ implementation and the understanding is not reached between the two parties, either of the parties may invoke the arbitration clause for which MD, HPGCL or his nominee shall be Sole Arbitrator. All arbitration proceedings under this regulation shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 and the Rule there under, with any statutory modifications thereof for the time being in force. The award of the Arbitrator shall be final and binding on both the parties. The Arbitration proceedings shall take place at Panchkula, Haryana.

19. JURISDICTION

The parties irrevocably submit to exclusive jurisdiction of the Courts of Panchkula in all matters arising under this Agreement.

20. REGULATORY APPROVALS

The Contractor shall procure and shall thereafter maintain and comply with all regulatory approvals required for the establishment and operation of the Accounts and the making of any deposits, transfers or withdrawals and for the performance of its obligations under this Agreement.

21. NOTIFICATION OF BALANCES

Within ____ days following the end of each calendar month, the Escrow Bank shall notify the Employer of the balance in the Account and furnish a statement of the deposits into and payment out of the Accounts at the close of business of such calendar month.

22. COUNTERPARTS, ANNEXURES, SCHEDULES

This Agreement may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

23. MISCELLENOUS

The Escrow Bank shall be responsible for maintaining a correct and complete record of all transactions, deposits, withdrawals or transfer of funds relating to the Accounts.

The Escrow Bank shall not make any transfer or withdrawal from the Escrow Account except as provided for in this Agreement.

SCHEDULE – I

1. First Part Details:

2. Second Part Details;

3. Third Part Details;

SCHEDULE – II
DETAILS OF ESCROW ACCOUNT

Particulars and Address of the Branch Office of the Escrow Bank for the Escrow Account	
IFSC Code	
Account Name and Account Number of Escrow Account	

SCHEDULE – III

**TERMS & CONDITIONS
AND
OPERATING PROCEDURES**

Deposits into Escrow Account

- All the Payments due under the Contract will be released by the Employer to the Contractor in this Escrow Account as per Terms of Payment agreed in the Contract.

Release/ Withdrawal of Funds from the Escrow Account

- Based on the request from the Contractor, the Employer will approve the list of suppliers of goods and services, statutory authorities, establishment expenses etc. to whom payments could be made and the same shall be shared with the Escrow Bank from time to time for releasing the funds.

Note: Detailed Operating Procedure in this schedule, shall be finalised between Employer, Contractor & Escrow Bank at the time of signing of this Agreement.

IN WITNESS WHEREOF the Contractor has caused its Common Seal to be affixed hereto on the date first above written, the Employer, and the Escrow Bank have caused the same and the said counterparts to be executed by the hand of an authorized official.

SIGNED AND DELIVERED BY (Name of Employer), the within named **EMPLOYER**, by the hand of _____ authorized representative of the Employer, who has been authorized to execute this Agreement.

THE COMMON SEAL OF
M/s _____
_____ the within named **CONTRACTOR**, has pursuant to the Resolutions of its Board of Directors passed in that behalf on _____

hereunto been affixed in the presence of MD and Company Secretary who has signed these presents in token thereof

SIGNED AND DELIVERED BY
_____, the within named **ESCROW BANK**, by the hand of
.....

Its Authorised Representative.

6a. Performance Security Form

(In case of Contract awarded to Joint Venture)

Note : In case of Contract awarded to Joint Venture wherever [Contractor's Name] is appearing, name of both the partners will be mentioned with the name of place of Registered/Head Office wherever applicable.

**7(i). Bank Guarantee Form for Advance Payment
(For Supply FOB/Ex-Works)**(To be stamped in accordance with the Stamp Act,
if any, of the Country of the issuing Bank) :To,
[Employer's Name & Address]
Dear Sir,Bank Guarantee No.....
Date.....

In consideration of[Employer's Name]..... (hereinafter referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....[Contractor's Name]..... with its Registered/Head Office at (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract, by issue of Employer's Notification of Award No. dated and the same having been unequivocally accepted by the Contractor, resulting into a Contract bearing No. dated..... valued at for[Name of Contract](hereinafter called the 'Contract') and the Employer having agreed to make an advance payment to the Contractor for performance of the above Contract amounting (in words and figures) as an Advance against Bank Guarantee to be furnished by the Contractor.

We.....[Name and address of the Bank]..... having its Head Office at (hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, immediately on demand any or, all monies payable by the Contractor to the extent of[110% of the advance amount]..... as aforesaid at any time upto(@)..... without any demur, reservation, contest, recourse or protest and/ or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to vary the advance or to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to[advance amount]..... and it shall remain in force upto and including(@)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s.....[Contractor's Name]..... on whose behalf this guarantee has been given.

Dated this day of 20 at

(Signature).....

(Name)

.....
(Designation with Bank Stamp)

Authorised Vide Power
of Attorney No.....

Dated.....

- Notes:**
1. (@) This date shall be ninety (90) days beyond the date of Completion of the Facilities covered under the Contract.
 2. The Bank Guarantee shall be from a Bank as per provisions of Section-V (SCC) of the bidding documents.
 3. The stamp papers of appropriate value shall be purchased in the name of guarantee issuing Bank or the Party on whose behalf the BG is being issued. The Bank Guarantee shall be issued on a stamp paper of value as applicable in the State(s) where the BG is submitted or is to be acted upon or is executed, whichever is higher.
 4. While getting the Bank Guarantee issued, the contractor is required to ensure compliance to the points mentioned in Form 16-Form of Bank Guarantee Verification Check List enclosed with the bidding documents. Further, the Contractor is required to fill up this Form 16 and enclose the same with the Bank Guarantee.

**7.(ii) Bank Guarantee Form for Advance Payment (For
Installation Services/Civil Works/Structural Works)**

(To be stamped in accordance with Stamp Act
if any, of the Country of the issuing Bank)

Bank Guarantee No.....
Date.....

To,
[Employer's Name & Address]

Dear Sir,

In consideration of*[Employer's Name]*..... (hereinafter referred to as the 'Employer', which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.....*[Contractor's Name]*..... with its Registered/Head Office at (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a Contract, by issue of Employer's Notification of Award No. dated and the same having been unequivocally accepted by the Contractor, resulting into a Contract bearing No. dated..... valued at for*[Name of Contract]*(hereinafter called the 'Contract') and the Employer having agreed to make an an interest bearing advance ('said Advance') to the Contractor amounting to (in words and figures).... in terms of the said Contract for performance of the above Contract against Bank Guarantee to be furnished by the Contractor.

We.....*[Name and address of the Bank]*..... having its Head Office at (hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, immediately on demand any or, all monies payable by the Contractor to the extent of*[110% of advance amount]*..... as aforesaid along with interest @ 12.20% per annum on the Advance amount released by the Employer calculated from the date of release of the said advance by the Employer to the Contractor, at any time upto(#)..... without any demur, reservation, contest, recourse or protest and/ or without any reference to the Contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding as to the amount and interest claimed by the Employer under this guarantee notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall be enforceable till ninety (90) days after expiry of its validity.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to vary the advance or to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The Bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to[110% of advance amount]..... along with interest on the advance amount released by the Employer as aforesaid and it shall remain in force up to and including(#)..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s..... [Contractor's Name]..... on whose behalf this guarantee has been given.

Dated this day of 20 at

(Signature).....

(Name).....

.....
(Designation with Bank Stamp)

Attorney as per Power
of Attorney No.....

Dated.....

- Notes:**
1. (#) This date shall be ninety (90) days beyond the date of Completion of the Facilities.
 2. The Bank Guarantee shall be from a Bank as per provisions of Section-V (SCC) of the Bidding Documents.
 3. The stamp papers of appropriate value shall be purchased in the name of guarantee issuing Bank or the Party on whose behalf the BG is being issued. The Bank Guarantee shall be issued on a stamp paper of value as applicable in the State(s) where the BG is submitted or is to be acted upon or is executed, whichever is higher.
 4. While getting the Bank Guarantee issued, the contractor is required to ensure compliance to the points mentioned in Form 16 - Form of Bank Guarantee Verification Check List. Further, the Contractor is required to fill up this Form 16 and enclose the same with the Bank Guarantee.

7(iii) Bank Guarantee Form for Advance Payment

(In case of Contract awarded to Joint Venture)

In case of Contract awarded to Joint Venture wherever [Contractor's Name] is appearing, name of both the partners will be mentioned with the name of place of Registered/Head Office wherever applicable.

(On Non-Judicial Stamp Paper of Appropriate Value)

**FORM OF JOINT VENTURE AGREEMENT
BETWEEN
M/S..... AND M/S.....
FOR
FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE
RGTPP, HISAR (2X600 MW)**

BIDDING DOCUMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250

This Joint Venture Agreement executed on this..... day of Two thousand between M/s..... a Company incorporated under the law of and having its Registered Office at (hereinafter called the "Partner-1," which expression shall include its successors, administrators, executors and permitted assigns) and M/s..... a Company incorporated under the laws of and having its Registered Office at (hereinafter called the "Partner-2", which expression shall include its successors, administrators, executors and permitted assigns) for the purpose of making a bid and entering into the Contract (in case of award) against Bidding Document No. **5/CE/PLG/NTPC/RGTPP/FGD-250** for **FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE RGTPP** of HPGCL, Chief Engineer / Planning, Haryana Power Generation Corporation Limited, C-7, Urja Bhawan, Sector-6, Panchkula- 134102 (hereinafter called "HPGCL" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for **FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE RGTPP** vide its Invitation for Bid No: _____

AND WHEREAS item no. 4.0, Qualifying Requirements stipulated in Bidding Data Sheets (BDS) forming part of Bidding Documents interalia under BDS Item No. 4.1.2 stipulates that the bidder can be Joint Venture between firms meeting the requirements of QR as stipulated in BDS. Further in this case, the bidder shall provide alongwith the bid a Joint Venture Agreement as per this format in which the partners in the Joint Venture are jointly and severally liable to the Employer to perform all contractual obligations.

AND WHEREAS the bid has been submitted to the Employer vide proposal no. dated based on the Joint Venture Agreement being these presents and the bid in accordance with the requirement of QR have been signed jointly by both the partners and submitted to the Employer.

NOW THEREFORE, THIS UNDERTAKING WITNESSTH AS UNDER :

1. That in consideration of the Award of the Contract by the Employer to the Joint Venture, we the partners to the Joint Venture Agreement do hereby agree that Partner-1 (M/s.....), shall act as the Lead Partner for self and

formed on behalf of Partner-2 and further declare and confirm that we shall be jointly and severally be bound unto the Employer for the execution of the contract in accordance with the Contract Terms and shall be jointly and severally liable to the Employer to perform all the Technical and Contractual obligations. Further, the lead partner is authorised to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture and the entire execution of the Contract including payment shall be done exclusively with the Lead Partner.

- 1.1 We the partners of the Joint Venture confirm that in case of award of Contract, each Partners of the Joint Venture shall execute the work for which we claim to have specific experience and based on which we meet the Qualifying Criteria.
- 1.2 None of the Joint Venture Partners shall assign or delegate its rights, duties or obligations under this Joint Venture Agreement, in any manner whatsoever, except with prior written consent of Employer.
2. Notwithstanding anything contained herein, the other partners do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the contract and undertake to carry out all the obligations and responsibilities under this Joint Venture Agreement in order to discharge the obligations and responsibilities stipulated in the contract. Further, if the Employer sustains any loss or damage on account of any breach of the contract, we the Joint Venture partners jointly and severally undertake to promptly indemnify, and pay such loss/damages, caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever. This is without prejudice to any rights of the Employer against the Joint Venture/Lead Partners under the Contract and / or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Partner-1 to these presents before proceeding against Partner-2.
3. We, the Joint Venture partners do hereby undertake and confirm that the Undertaking shall be irrevocable and shall not be revoked till the expiry of Defect Liability Period of the "Facilities" under the Contract, and further stipulate that the Undertaking herein contained shall terminate upon satisfactory completion of such Defect Liability Period. We further, agree that this Agreement shall be without any prejudice to the various liabilities of the Joint Venture partners including the Security Deposit as well as other obligations of Joint Venture partners in terms of the Contract.
4. The Joint Venture partners will be fully responsible for the quality of all the works and their upon replacement if necessary and timely execution thereof to meet the completion schedule under the Contract.
5. This agreement shall be construed and interpreted in accordance with the Laws of India and the Courts of Panchkula shall have exclusive jurisdiction.
6. We, the Joint Venture partners agree that this Agreement shall be irrevocable and shall form an integral part of the Contract. We further agree that this Agreement shall continue to be enforceable till the successful completion of Contract and till the Employer discharges it.
7. That this Agreement shall be operative from effective date of the Contract.

IN WITNESS WHEREOF, the Joint Venture partners through their authorised representatives, executed these present and affixed common seals of their respective companies, on the day, month and year first mentioned above.

For M/s
(Joint Venture /Partner - 1)

Witness :

1. Common Seal of
M/s..... (Signature of the authorised
Has been affixed in my/our representative)
Presence pursuant to Board Name.....
of Directors Resolution dated

Signature..... Designation.....
Name..... Common Seal of the Company
Designation.....

For M/s
(Joint Venture / Partner - 2)

2. Common Seal of
M/s..... (Signature of the authorised
Has been affixed in my/our representative)
Presence pursuant to Board Name.....
of Directors Resolution dated

Signature..... Designation.....
Name..... Common Seal of the Company
Designation.....

ANNEXURE-A

5/CE/PLG/NTPC/RGTPP/FGD-250- Amendment - 04

1. Amendments in bidding documents are as under:

S.N	Reference			For	Read as
	Section	Clause	Page		
1.	SECTION-II, ITB	8.1.2	5 of 34	--	Incorporation of clause no. 8.1.2(v) : Attachment 24: Certificate regarding prices of mandatory spares.
2.	SECTION-II, ITB	10.4	14 of 34	--	Incorporation of clause no. 10.4 (g) as under: The cost of mandatory spares quoted by the bidder should not exceed five (5)% of the supply portion of the total quoted prices in the schedule 1&2 excluding the cost of mandatory spares & type test charges. The bidder shall submit a certificate in this regard as Attachment 24 .
3.	SECTION-II, ITB	23.1	24 of 34	--	Incorporation of clause no. 23.1(f) as under: The cost of mandatory spares quoted by the bidder should not exceed five (5)% of the supply portion of the total quoted prices in the schedule 1&2 excluding the cost of mandatory spares & type test charges. The bidder shall submit a certificate in this regard as Attachment 24 .
4.	Section – VII Book 1 of 3	BID FORM (TECHNO- COMMERCIAL BID)	3 of 6	--	Incorporation of Sr no. 2.0 (y) Attachment- 24: Certificate regarding prices of mandatory spares. The contents are as under: <i>“It is certified that the prices of mandatory spares quoted are equal to or less than five (5) % of the supply portion of the total quoted prices in the schedule 1&2 excluding the cost of mandatory spares & type test charges”.</i>

2. The Annexure-I to Attachment-8 (page 1 of 1) of Book 1 of 3 (Section – VII) regarding break up of Guaranteed Auxiliary Power Consumption Guarantee Quoted as per Clause (III) of Attachment-8 of Bid form, is to be replaced with attachment provided as under:-

FLUE GAS DESULPHURISATION (FGD) SYSTEM PACKAGE
RGTPP, HISAR (2X600 MW)
BIDDING DOCUMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250

**(Break up of Guaranteed Auxiliary Power Consumption Guarantee Quoted
as per Clause (III) of Attachment-8) of Bid Form**

Bidder's Name and Address:

To
Chief Engineer / Planning,
Haryana Power Generation Corporation Limited
C-7, Urja Bhawan, Sector-6
Panchkula- 134102

Dear Sir,

Sl. No.	Name of Auxiliaries	No .in Operation	Total Power Consumption (in KW)
i.	Absorber Recirculation Pump(s)/Gas Cooling Pumps		
ii.	Absorber Oxidation Air Blower(s)		
iii.	Absorber Oxidation Tank Agitators		
iv.	Gypsum Bleed Pumps		
v.	Limestone Gravimetric feeder, Wet ball mill and the integral Auxiliaries		
vi.	Limestone Slurry Pump(s)		
vii.	Vacuum Belt Filter, Vacuum Pump and its integral auxiliaries		
viii.	Booster water pump(s) (if provided)		
ix.	Process water pump(s)		
x.	Clarified Booster water pump(s)		
xi.	Clarified water pump(s)		
xii.	Mist Eliminator Wash Water pump(s)		
xiii.	Booster Fans		
xiv.	Limestone Slurry Tank Agitators		
xv.	Filtrate Pump(s)		
xvi.	Belt Filter Wash Water Pump		

ANNEXURE-I to ATTACHMENT-8(Rev-01)

Sl. No.	Name of Auxiliaries	No .in Operation	Total Power Consumption (in KW)
xvii.	Hydro-cyclone Waste Water Sump Pump and Waste Water Pump		
xviii.	All other continuous running Agitators		
xix.	Air Conditioning System		
xx.	Auxiliary Cooling water pump		
xxi.	Belt Filter Wash Water Pump		
xxii.	Air Compressors		
xxiii.	Air Drying Plant		
xxiv	DMCW pump		
xxv.	Any other continuously operating auxiliaries		

***Grand Total Power Consumption (KW)**

Note : *Bidder to note that Grand Total of Power Consumption of the above shall be mentioned at Sl. no.(III) of Attachment-8.

Date : (Designation).....

Place : (Printed Name).....

ANNEXURE-A

AMENDMENT NO. 6 TO TECHNICAL SPECIFICATION

S. NO.	SPECIFICATION REFERENCE				EXISTING	READ AS
	SEC/ PART	SUB- SEC.	PAGE NO.	CLAUSE NO.		
1.	VI/A	VI	14 of 16	5.00.00	To be added.	<p>xxiv. Power consumption of lime stone unloading, conveying, crushing, storage & reclaiming system (Single stream) except Lighting, Hoists, sampling unit, Sump Pumps, Elevators, DE, Ventilation, SW System, Portable water system Duty factor for above system to be considered as 0.125. Accordingly, Power consumption for the same shall be duty factor x power consumption.</p> <p>xxv. Power consumption of Gypsum conveying system (Single Stream) except Lighting, Hoists, Sump Pumps, DE, Ventilation, SW System, Potable water system. Duty factor for above system to be considered as 1. Accordingly, Power consumption for the same shall be duty factor x power consumption.</p>

<p>FGD SYSTEM PACKAGE RGTPP, HISAR (2x600 MW).</p>	<p>AMENDMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250-AMDT-06 BID DOCUMENT NO. 5/CE/PLG/NTPC/RGTPP/FGD-250</p>	<p align="center">Page 1 of 1</p>
---	--	-----------------------------------