

FERTILISERS AND CHEMICALS TRAVANCORE LIMITED UDYOGAMANDAL – 683 501, KOCHI, KERALA

Tender No : MM/172/E23465 dt 31.05.2021

Name of work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY

AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK

BASIS

PART - I, COMMERCIAL





THE FERTILISERS AND CHEMICALS TRAVANCORE LTD.

(A Govt. of India Enterprises)

CORPORATE MATERIALS PD Administrative Building, Udyogamandal P.O.,

Ernakulam Dist., Kerala State, INDIA PIN 683501

Phone: 0484-2568646, 2568253

Fax: 0484-2545998; email: capmat@factltd.com; chidambaram@factltd.com

NOTICE INVITING E- TENDER (International Competitive Bidding)

TENDER No. MM/172/E23465 dt. 31-05-2021

Encrypted Competitive Lump Sum rate, Single stage Two Bid Tenders containing the NAME OF WORK and TENDER REFERENCE NUMBER are invited by the Assistant General Manager (Materials)-SP&PF/FACT from reliable and experienced contractors of sound financial standing. Tenders received will be opened online on the due date and time. Tender details are given below.

Enquiry No.	MM/172/E23465 dt. 31-05-2021	
Pre-Bid Meeting date, time and place	on 07 June 2021 at 10.30 AM IST at FEDO Conference Room, Udyogamandal - 683 501, ERNAKULAM Dist. KERALA	
Due date & time for Submission of bids	21-06-2021 & 14:00:00 Hrs IST	
Date & Time for Part-A Bid opening	22-06-2021 & 14:30:00 Hrs IST	
Date & time of opening of online price bid Part -B	Price bid of the bidders who are qualified in Techno-Commercial Evaluation only will be opened. The date & time of price bid opening will be intimated to the qualified bidders.	
Name of Work/Description	NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS	
EMD	INR 50,00,000/- / USD 70,000/-(Indian Rupees Fifty Lakhs or US Dollars seventy thousands only)	
Validity of Tender	6(six) Months from the date of Part A Bid open	
Period of Contract	20(twenty) Months.	
Tender Document Fee	Nil	
Contract Type	Lumpsum - WORK ORDER	
Contact Details	T. Chidambaranathan, Asst. General Manager (Materials) Phone: 0484-2568646; email: chidambaram@factltd.com	

Detailed specifications and other terms and conditions are mentioned in the Tender Documents.

NOTE: -

- 1. The Tender Documents can be downloaded from FACT website (www.fact.co.in) or from Central Public Procurement Portal (http://eprocure.gov.in).
- 2. Payment against EMD may be remitted through NEFT/ RTGS to the FACT's account or shall be submitted in the form of Demand Draft from a Nationalized/ Scheduled Bank drawn in favour of FACT Ltd., payable at Udyogamandal or shall be in the form of Bank Guarantee. Other mode of payment will not be accepted. The details of the remittance of amount such as UTR No./ DD No./BG as applicable shall be uploaded along with the tender document. Original EMD (DD/Bank Guarantee/UTR document etc), Integrity Pact and Solvency certificate shall be sent/submitted before the due date and time of OPENING OF THE

TECHNICAL BID to the office of Assistant General Manager (Materials)-SP&PF/FACT-PD, Udyogamandal.

- 3. Offers against this NIT shall be submitted online on e-Tendering portal https://eprocure.gov.in, as per the Instructions to Bidders attached. Offers submitted on any other platform or in any other mode or including e-mails, physical offers etc. shall not be accepted.
- 4. FACT reserves the right to accept /reject any request for extension of the due date of tender.
- 5. FACT reserves the right to accept/reject any or all bids at any stage without assigning any reason thereof.
- 6. Submission of BIDS: Part-I & Part-II Bids are to be submitted online in 2 separate covers as mentioned in CPP Portal and as per Instructions to Bidders.
- 7. All relevant documents of Part-1 mentioned in check list may be submitted to Assistant General Manager (Materials)-SP&PF, MATERIALS Dept., FACT-Petrochemical Division, Udyogamandal, 683 501, Ernakulam District, Kerala in a cover superscribed with tender number and name of work, , so as to reach well before the due date & time of opening the Technical Bid. Any other tender documents ""in original"" shall also be submitted by the bidder to FACT for reference, if requested to do so.
- 8. Offers submitted other than on-line mode shall not be accepted.
- 9. Time extensions, Corrigendums, Addendums etc if any, will be hosted in the CPP e-procure website only and will not be published in newspapers. The bidders are requested to visit the website regularly for corrigendums, addendums, time extensions etc. if any.
- 10. Integrity Pact: The bidders shall sign and submit an "Integrity Pact (IP)" to be executed between the bidder and Fertilisers and Chemicals Travancore Ltd. along with the bid as per Annexure- . IP shall be implemented through the following Independent External Monitor (IEM) for the bid.

Mr. P.K. Vijayakumar, IRS (Retd),

Madhavam, Vaniyan Lane, Punkunnam P.O, Thrissur – 680002

Mobile: 8547381122 Telephone: 0487-2381123

E-mail address: vkmenon78@gmail.com

Note: In case bidders require any clarification pertaining to this tender please **contact FACT personnel**. Kindly note that the Independent External Monitor <u>should **NOT**</u> be contacted for clarifications regarding the tenders."

11. Pre-Bid Meeting is on 07 June 2021 at 10.30 AM IST at FEDO Conference Room, Udyogamandal - 683 501, ERNAKULAM Dist. KERALA. All pre bid queries shall reach FACT on or before 5-June-2021 by email.



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ANNEXURE TO NIT:MM/172/E23465 dt 31.05.2021, PRE-QUALIFICATION CRITERIA

1.0 INTRODUCTION

BIDDER/CONTRACTOR shall be a Single Bidder subject to meeting the Pre-qualification Criteria as stated in Clause 1.1, 1.2 and 1.3 below.

No consortium will be allowed.

Evaluation of Techno-Commercial offers shall be carried out for only those Bidders who shall meet the Pre-qualification Criteria.

1.1 TECHNICAL CRITERIA

In last 25 (Twenty Five) years;

- A) LSTK BIDDER/CONTRACTORon his own must have carried out Design (as per API 620 Annex R), Basic and Detailed Engineering, Procurement, Fabrication, Erection, Construction, Commissioning and Testing of at least one number double wall double integrity storage tank of capacity not less than 5000 MT of liquid storage with inner and outer tanks of LTCS materials/higher metallurgy along with associated refrigeration system. Plant shall have completed at least one year, from the date of final acceptance by the Owner, of successful operation in the field. Foreign BIDDERS shall have completed at least one Plant in a country other than their country of origin.
 - a) Supporting documents to be submitted:
 - i) Purchase Order with detailed specifications
 - ii) Completion and Performance Certificates from Client
 - iii) Contact details of Client

OR

- B) In case LSTK BIDDER/CONTRACTOR on his own does not meet the criteria specified in A) above in terms of "Design & Engineering" of double wall double integrity storage tank and associated works but meets the criteria in terms of fabrication, erection commissioning and testing, he can still be qualified provided both the following criteria are satisfied:
 - The LSTK BIDDER/CONTRACTORengages a backup consultant who have carried out Basic Design (as per API 620 Annex R) and Detailed Engineering, of at least one number double wall double integrity storage tank of capacity not less than 5000 MT of liquid storage with inner and outer tanks of LTCS materials/higher metallurgy along with associated refrigeration system. Plant shall have completed at least one year, from the date of final acceptance by the Owner, of successful operation in the





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ANNEXURE TO NIT:MM/172/E23465 dt 31.05.2021, PRE-QUALIFICATION CRITERIA

field. The design documents shall be prepared by the back-up Consultant. Fabrication drawings prepared by the bidder based on back-up Consultant documents shall be vetted by the back-up Consultant. Bidder shall furnish the guarantee for design, engineering and performance of the double wall double integrity storage system from their backup Consultant. However, ultimate guarantee for design, engineering, construction and performance shall be provided by the BIDDER.

- a) Supporting documents to be submitted:
- i) Work Order issued in the name of Consultant for design criteria mentioned at B.1showing detailed specifications
- ii) Completion and Performance Certificates from Client
- iii) Proven track records and credentials of the Consultant
- iv) The BIDDER shall furnish along with his bid the MOU/ Letter of Agreement/ Letter of Consent with the proposed back-up consultant confirming the scope of work as defined inB.1 above pertaining to "Design & Engineering"

And

- 2) LSTK BIDDER/CONTRACTORon his own must have executed at least one procurement and construction works of at least one number double wall double integrity storage system of capacity not less than 5000 MT liquid storage with associated refrigeration system. The scope of Work must include Procurement, Fabrication, Erection, Construction, Commissioning and testing of at least one number double wall double integrity storage system of capacity not less than 5000 MT liquid storage with inner and outer tanks of LTCS materials/higher metallurgy along with associated refrigeration system. Plant shall have completed at least one year, from the date of final acceptance by the Owner, of successful operation in the field. Foreign BIDDERS shall have completed at least one Plant in a country other than their country of origin.
 - a) Supporting documents to be submitted:
 - i) Purchase Order with detailed specifications
 - ii) Completion and Performance Certificate from Client
 - iii) Contact details of Client





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ANNEXURE TO NIT:MM/172/E23465 dt 31.05.2021, PRE-QUALIFICATION CRITERIA

1.2 EXPERIENCE CRITERIA

- 1.2.1 LSTK BIDDER/CONTRACTOR shall have successfully completed in last Seven (7) Years similar works of:
 - I) One work of value INR 72 Crores OR
 - II) Two works of value INR 45 Crores each OR
 - III) Three works of value INR 36 Crores each
- 1.2.2 Similar work means any engineering / construction projects in Oil/Gas/Fertiliser/Chemicals /Petrochemicals sector. Foreign BIDDERS shall have completed at least onesimilar work in a country other than their country of origin.
- 1.2.3 Supporting documents to be submitted:
 - i) Purchase Order with detailed specifications
 - ii) Completion and Performance Certificate from Client (Completed Value of work shall be shown in the Completion Certificate)
 - iii) Contact details of Client

1.3 FINANCIAL CRITERIA

1.3.1 Turnover requirement

- i) The average annual turnover during the last three years i.e. 2017-18, 2018-19, 2019-20 (or for calendar years 2017, 2018, 2019 as applicable) of the BIDDER shall be at least INR 50 Crores.
 - All BIDDERs shall submit Audited Balance Sheet and Profit & Loss statement for last three financial years 2017-18, 2018-19 and 2019-20 (or for calendar years 2017,2018 and 2019as applicable). If the Audited Balance Sheet and Profit & Loss statement are prepared in foreign currency, exchange rate as on tender e-publishing date shall be taken for calculation of average annual turnover in INR ().
- ii) Net worth of the BIDDER should be positive during the last three preceding financial years i.e. 2017-18, 2018-19 and 2019-20 or calendar years 2017, 2018 and 2019 as applicable. The bidder shall submit the documentary proof e.g. audited balance sheet, P&L account etc. for the same.

1.3.2 Financial Soundness Certificate

The BIDDER shall submit solvency certificate not older than three months from the date of issue of tender, from a Nationalised/Scheduled Bank for a value not less than INR 50 Crore, as on date of e-publishing of tender.





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ANNEXURE TO NIT:MM/172/E23465 dt 31.05.2021, PRE-QUALIFICATION CRITERIA

Foreign Bidders shall submit financial soundness certificate in their quoted currency for value equivalent to INR 50 Crores, based on exchange rate at tender publishing date. If the certificate is from foreign bank, the same shall be confirmed by a Foreign Branch of Indian Nationalised/Scheduled Bank or by an Indian Branch of a foreign Bank.

1.4 GENERAL

- 1.4.1 The time period mentioned in above clauses shall be reckoned from the date of epublishing of this tender.
- 1.4.2 BIDDER shall submit all supporting documents, certificates and credentials etc. in ENGLISH language only.
- 1.4.3 Foreign bidders shall submit all documents, certificates, credentials etc. duly certified by Indian Embassy / High Commission in their country. Indian BIDDERS also shall submit all documents, certificates, credentials etc. related to work done in any foreign country duly certified by Indian Embassy / High Commission in the country where the work was done.





LIST OF ATTACHMENTS OF CONTRACT DOCUMENT TENDER NO : MM/172/E23465 dt 31.05.2021

NAME OF WORK:NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS PART-I COMMERCIAL

SI No.	Description	Pages
	COVER-1 (PREQUALIFICATION CUM TECHNICAL BID)	<u>.</u>
1	NIT	1
2	Annexure to NIT & Prequalification Criteria	6
3	Instruction to Bidders for Single Stage 2 Bid System in 2 Cover	15
4	Vendor Data Form (For New Vendors)	2
5	Details for e-Payment (For New Vendors)	1
6	Attachment-1- Form of Bid	3
7	32686/25/ANX/03- Commercial Questionnaire	5
8	32686/25/ANX/04- Exception/Deviation Statement	1
9	32686/25/ANX/EX-Exhibits	4
10	Attachment-IIB- Corporate Status Of Bidder	1
11	Attachment-IIC - Details Of Similar Works Executed	1
12	Attachment-IID- Current Commitments of the Bidder	1
13	Attachment-IIF- Bidder's Site Organisation	1
14	Attachment-IIG- Bidder's Key Perssonel	1
15	Attachment-IIH- Bidder's Proposed Programme of Work	1
16	32686/25/ANX/08- EXECUTION PLAN	4
17	32686/25/ANX/08A- Minimum Qualification & Experience of Key Supervisory	2
	Construction Personnel.	
18	32686/25/ANX/08B- Deployment Schedule of Supervisory Personnel	7
19	32686/25/ANX/08C- Deployment Schedule Of Construction Equipment.	5
20	32686/25/ANX/08D- Details of Equipment Proposed to be Used for Tendered Work	1
21	32686/25/ANX/10- Format of Bidder's Querries for Pre-Bid Discussion	1
22	32686/25/ANX/11- Description Of The Performance Guarantees	1
23	32686/25/ANX/13- Declaration Of The Bidder Regarding Bidding Document	1
24	32686/25/ANX/18-Proforma of Certificate Of Non-Involvement Of Agent	1
25	32686/25/ANX/19- Format Of Letter Of Waiver Of Conditions / Deviations	1
26	32686/25/ANX/21- Contents Of Bid And Checklist	4
27	32686/25/ANX/22- Acknowledgment Cum Consent Letter General Conditions of Contract & Special Conditions of Contract	3
1	Cover Page	1
2	General Conditions of Contract	34
3	Schedule – A - Scope of Work	2
4	Schedule – B - Programme of Work	1
5	Schedule – C - Technical Document & Drawings	2
6	Schedule – D - Site Conditions	1
7	Schedule – E - Supplies By Owner	1
8	Schedule – F - Supplies By Owner Schedule – F - Prices	1
Ö	Schedule = r - Prices	1

9	Form- F1- Unpriced Schedule	1
10	Form-F2- Rates for Extra Items	1
11	Schedule – G - Payment Schedule	1
12	Schedule – H - Site Facilities	1
13	Schedule – L – Form of Bank Guarantee for SD	2
14	Schedule – N – Form of Release Certificate	2
15	Schedule – P - Safety Code	24
16	Schedule – Q- Special Conditions of Contract	46
	COVER-2 (PRICE BID)	
1	BOQ (xl format-fill rates and relevant filelds and upload)	1



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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

1. SUBMISSION OF TENDER

- i. Bidders shall study carefully the complete tender documents viz. NIT, Schedule of Work, Price Bid format (BOQ), General Conditions of Contract, All Schedules from A thru' Q including drawings if any, Instructions to Bidders, Pre-Qualification Criteria, Special Terms & Conditions of the Tender, etc. Time extensions, Corrigendum, Addendums etc if any, will be hosted in the CPP e-procure website only and will not be published in newspapers. The bidders are requested to visit the website regularly for corrigendum, addendums, time extensions etc if any.
- ii. Offers against this NIT shall be submitted online in separate covers as instructed on E-Tendering portal https://eprocure.gov.in, with valid digital signature certificate. Tender documents and related Schedules uploaded shall be digitally signed and encrypted using the facility available at the site. Offers submitted on any other platform or in any other mode or including e-mails, physical offers etc. SHALL NOT be accepted
- iii. All bidders are requested to register themselves on the above website with their valid digital signature certificate. It is mandatory for bidder to have valid digital signature certificate (Class II or Class III) issued by any of the Certifying Authority approved by Govt. of India for participating in the tender. Bidders may refer **Bidders Manual Kit** available on the above website for detailed information and instructions for registration, bid submission etc.
- iv. The details of the payments (for EMD) made through NEFT/ RTGS shall be uploaded along with the offer submitted online, mentioning the tender number and name of bidder while making the online payment. In case of payment by DD/BG etc. the bidder shall make sure that the DD/BG & Solvency certificate, both in original reach the office of Assistant General Manager (Materials), FACT, Udyogamandal, Ernakulam District, Kerala, Pin-683 501 before the due date and time of opening of the unpriced tender (Cover-1 of e-tender), enclosed in an envelope super scribed with the tender number, name of work and address of the vendor. In case the originals are not received within the stipulated time, the offer of the bidder shall not be considered for evaluation.
- v. Validity: Tenders shall be valid for the acceptance of FACT for a minimum period of SIX MONTHS from the date of opening of the unpriced tender (Cover-1), during which period Tenderer shall not revoke or cancel his tender or vary the prices or any terms and conditions of his tender already submitted.
- vi. Bid shall be submitted online in Two (2) covers as per NIT

Cover-I shall contain the following documents Original/Copy/digitally signed/self-attested/attested by Gazetted officer and then scanned as the case may be. (Please see the checklist)

- a. Notice Inviting Tender and Annexure to NIT
- Details of EMD as applicable/ Claim for exemption with testimonials (upload scanned copy of instrument like DD/BC/BG in PDF format
- c. Signed and filled Commercial bid including Attachments, Annexures Copies of supporting documents against Pre-Qualification Criteria, like copy of Purchase and work orders with schedule of Quantities, Performance and Completion certificates etc, shall be self-attested. The originals of the self-attested documents may be produced on demand.
- d. Terms and Conditions of Tender including GCC unpriced BOQ, drawings and other documents
- e. Copies of GST Registration Certificate, PAN Card, Recent Bankers' Certificate with Cash Credit and Bank Guarantee Limit, Required Solvency Certificate, Audited Balance sheet for the last three years including Profit & Loss account, Schedules, Notes on account etc as applicable.
- f. INFORMATION OF SIMILAR WORKS done during the past seven years with Name of client, name of work, brief scope of work, initial & final contract value, Completion period etc.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- g. Details of PRESENT COMMITMENTS with details of work, initial contract value, period of completion, name of client, expected date of completion, percentage progress etc.
- h. Details of **CONSTRUCTION PLANT AND EQUIPMENT** available with him for using in this work.
- i. **SITE ORGANIZATION CHART** in "FAMILY TREE" form, showing the number and grades of field supervisory, administrative and craft personnel to be employed in the works.
- j. Resumes of all proposed KEY PERSONNEL of the organization to be associated with the work, detailing their qualifications and experience over the past 10 years.
- k. PROGRAMME OF EXECUTION OF WORKS with respect to OWNER'S Requirement in **BAR CHART or PERT FORM** highlighting all-important milestones.
- Compliance Statement with respect to Technical aspects, General Terms and conditions, Special conditions, Safety Rules etc
- m. Document showing deviations, if any, in case the bidder is not complying fully with the tender conditions as above. Scanned copy of a signed document, stating the deviations against clauses applicable, shall be uploaded in the case of non-compliance.

Note: All the above documents shall be submitted on line in cover 1 for which sufficient file space (up to 6 files) will be provided.

Cover II - Only BOQ shall be uploaded in this cover

- a) Price Bid i.e. BOQ attached to the e-tender shall be uploaded after filling all relevant information such as, name of the bidder, basic price and GST in relevant fields.
- b) GST details shall be quoted separately in the column provided in BOQ
- c) The Priced BOQ shall be uploaded strictly in the format (Excel) attached, failing which the offer is liable to be rejected. Renaming or changing the format of BOQ sheet will not be accepted by the System.
- Bidders shall quote prices in the BOQ only. Prices indicated elsewhere shall not be considered.
- e) Bidders are required to quote in only one currency(out of INR/USD/EURO/JPY). Indian Bidders shall quote in INR only. Payment for CIVIL WORKS & SERVICES shall be made in equivalent INR only even if the prices are quoted not in INR. No deviation is allowed on this.

Note: Bidder is requested not to send/submit any hard copy of price bid.

- vii. Bidders are advised to submit quotation based on the terms and conditions and other schedules contained in this tender document and not stipulate any deviations as far as possible.
- viii. Any exception/ deviations, which the bidder may propose, shall accompany the quotation. FACT reserves the right to evaluate quotations containing deviations after taking into account impact of such variations in quoted price. All attachments to these tender documents as applicable will become part of any resulting contract.
- ix. Bidders are advised to complete all uploading formalities related to tenders well in advance. FACT shall not be responsible for non-submission/ uploading due to technical reasons, like non-availability of website in the closing minutes of the tender end date and time. Care shall be taken to submit the hard copy of Cover-I as mentioned in (iv) above with original EMD & Solvency documents and Integrity pact as per clause 18.0 below, well before the due date and time of the tender.
- x. In the tender document published by FACT, the content in its entirety is relevant and the bidder shall give the compliance without deleting or altering any of the portion in the whole set of Tender Document. Failure to comply with this requirement may result in rejection of the tender.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- xi. Completeness of scope of work: Tenders shall be for the complete scope of work as described in the Tender Document, without any exclusion. Only those tenders who meet this requirement will be considered for award of the Contract.
- xii. The Tenderer is responsible for properly estimating the difficulty and cost of the work. The Tenderer may request and obtain from all concerned sources/ authorities the clarification of items that require additional information prior to submitting the proposal. Questions on clarifications required from FACT shall be submitted thru' email.
- xiii. The Tenderer may visit the job site and acquaint himself fully of the site conditions. The Tenderer shall also satisfy himself about the availability of labour, likely labour demands, problems of weather conditions, infra structural facilities, availability of construction materials etc. No claims whatsoever will be entertained on the plea of ignorance or difficulties involved in the execution of work or carriage of materials on account of the site conditions.
- xiv. The Tenderer shall bear all costs associated with the preparation and submission of his tender and further clarifications as needed including participation in discussions at FACT/FEDO, and FACT/FEDO shall in no case be responsible or liable for such costs regardless of the outcome of the tender evaluation.
- xv. Amendments to the tender documents may be issued by FACT/FEDO prior to the date of submission of tenders for the purpose of clarification and/ or reflecting modifications in the requirements in the tender, which shall be complied with by the tenderer. Such amendments to the tender documents, if any, shall be uploaded at https://eprocure.gov.in only, prior to the date of submission of tenders.
- xvi. FACT/FEDO shall proceed with evaluation of the Pre-qualification and / or Technical & Commercial documents based on documents as received with each tender and shall not be obliged to call for any missing documents. Bidders are requested, in their own interest, to ensure that their tenders are complete in all respects containing all requested documents and those who do not comply with this requirement would be doing so at their risk. Also closely verify the checklist for the uploaded documents and confirm whether all requested documents are uploaded.
- xvii. FACT/FEDO reserves the right to extend the closing date of the bid without giving any reasons, but such extension shall be updated in https://eprocure.gov.in.
- xviii. In case information, if any given by the bidder, is found to be untrue, FACT/FEDO reserves the right to terminate the contract without any notice or assigning any reason thereof.
- xix. Any intimation to contractors will normally be sent by e-mail at their address given in their bid. FACT/FEDO will not be responsible for delay in delivery of mail or non-receipt of intimation due to any reason.
- xx. The quotations shall be submitted in English Language and the units of measurement shall be in metric system.
- xxi. IMPORTANT : Bidders who wish to quote with different option of technology may do so and shall submit the same as separate independent offer for which separate EMD & pre Qualification shall be applicable & required

2. EARNEST MONEY DEPOSIT

i. EMD may be remitted through NEFT/ RTGS to the account as given below or shall be submitted in the form of Demand Draft from a Nationalized/Scheduled Bank in INDIA drawn in favour of FACT payable at Udyogamandal or shall be in the form of Bank Guarantee. (Form of BG attached). The details of the remittance of EMD such as UTR No./ DD No./ soft copy of BG as applicable shall be uploaded along with the tender document. If payment of EMD is made by DD/ Bank Guarantee, ORIGINAL document is to be submitted at the office of AGM (Materials), FACT before the due





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

date and time of opening of TECHNICAL BID, super scribing the tender number, name of the work and name of the bidder on the envelope containing the document.

Account details for remittance of EMD through NEFT/ RTGS are as given below.

Name of A/c Holder : Fertilisers And Chemicals Travancore Ltd.

Account Type : Cash Credit
Account No : 57017844467
IFS CODE : SBIN0070158
Name of Bank : State Bank of India
Branch : Udyogamandal
District : Ernakulam
State : Kerala

The bidder shall indicate the name of the bidder and tender number while making the online payment through NEFT/ RTGS and the details of the payment with UTR No shall be uploaded along with the offer submitted online

The Earnest Money Deposit accompanying the tender, if in the form of Bank Guarantee, shall be kept valid up to a period of **ONE MONTH beyond the validity of tender itself. (For minimum 7 Months)**. The successful Tenderer shall keep the EMD valid up to the date of entering into a formal contract with FACT and establishing the security deposit.

- iii. Bids without EMD shall be rejected. EMD and document fee is exempted for Micro, Small and Medium Enterprises (MSME) having a valid certificate of registration/Udyog Aadhar issued by the National Small Industries Corporation/Govt. of India. Copy of the certificate shall be provided/uploaded along with the bid to avail exemption. EMD and document fee is exempted for government departments/PSUs/Khadi Board/registered labour contract cooperative societies also.
- iv. No interest shall be paid on the EMD.
- v. If the bidder retracts from or without request of FACT, revises his bid within the validity period of the bid, the EMD shall be liable to be forfeited without prejudice to FACT's other rights to claim damages.
- vi. In case the bidder whose bid is accepted, fails to deposit the prescribed Security Deposit or fails to execute the agreement or fails to commence the execution of the work within the specified time, the contract issued to him is liable to be cancelled and the Earnest Money already deposited by the contractor shall be forfeited without any further reference to the contractor and alternative arrangements made at the risk and cost of the Contractor.
- vii. On the successful tenderer remitting the Security Deposit, EMD of all unsuccessful bidders will be released. The EMD of the successful Bidder will be adjusted against Security Deposit or will be released, if the bidder wishes so, upon entering into an agreement and providing the security deposit.
- viii. BANK GUARANTEES: All Bank guarantees shall be submitted as per the relevant formats attached and shall be issued/confirmed by a Nationalised / Scheduled bank in India. If the instrument is from a foreign bank, the same shall be confirmed by a Foreign Branch of Indian Nationalised/Scheduled Bank or by an Indian Branch of a foreign Bank.

3. VALIDITY

The bid shall be valid for a period of **Six Months** or for any higher period as prescribed in the tender notice / documents from the date of opening of bids during which period Tenderer shall not





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

revoke or cancel his tender or vary the prices or any terms and conditions of his tender already submitted and in such cases, the tender / bid submitted is liable to be disqualified and the EMD furnished is liable to be forfeited.

4. PRICING

- i. The quotations shall, in all respects, conform with the enclosed specifications, drawings, data sheets, terms & conditions and other schedules enclosed herein.
- ii. The unit rate quoted will form the basis of compensation even if the scope of work is altered or vary within the stipulated completion period.
- iii. Bidders are requested to quote firm prices / rates valid through the completion period and no escalation in prices / rates whatsoever will be permitted. In case Bidder modifies his rates / prices before placement of order, his offer is likely to be disqualified & EMD forfeited.

5. EVALUATION OF QUOTATIONS

- i. The following conditions shall be considered in the evaluation of quotations:
 - a. Agreement with terms and conditions and schedules of Tender document
 - b. Price
 - c. Delivery / Completion period
 - d. Experience with the same or similar works for the intended services
 - e. Bidder's resources (Finance, man-power, plants & equipments) under possession for satisfactory execution of WORK.
 - f. Loading towards power consumption.
 - g. EVALUATION METHODOLOGY WILL BE CARRIED OUT AS PER CLAUSE 21 OF ITB
- ii. Bidders are expected not to take any deviations from the terms indicated in the tender documents. For bid evaluation, FACT/FEDO shall make Price loadings to the quoted prices of Tenderer towards deviations in terms & conditions of the tender as follows.
 - a. Payment Terms: No advance payment is acceptable. In case of earlier payments than the stipulated payment schedule, the same shall be loaded with SBI PLR Rate (as on date of Part A bid opening) for the period & amount of earlier payment.
 - b. Price Reduction Clause
 - 1. As per Tender(0.5% per each week or part there of delay sub.to a max.10 %): Nil loading
 - 2. 0.5% per week or part thereof to a capped value: % loading for the difference from 10%.
 - 3. Any other deviation or non acceptance: 10% loading.
 - c. No deviation in Security Deposit & Performance Guarantee terms are acceptable.
- iii. Bids from bidders, against whom any criminal case, enquiry or investigation/ report by authorities like Vigilance, CBI etc., are pending in relation with FACT or bidders who are defaulting Contractors of FACT, shall be disqualified and rejected.
- iv. FACT/FEDO reserves the right to reject any or all bids without assigning any reasons whatsoever, and/ or based on the past unsatisfactory performance by bidders at FACT/ other PSEs / Govt. Departments. The opinion of FACT/FEDO regarding the same shall be final and conclusive. The work may be split up if considered expedient.
- v. In case more than one bidder becomes L1, the contract will be finalized based on revised lowest tendered amount, which will be obtained from the L1 bidders.
- vi. FACT/FEDO reserves the right to negotiate with the lowest bidder only as per CVC guidelines.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

vii. FACT/FEDO shall, at its own discretion, delete any one or more item of works from the tender at any time without assigning any reason whatsoever.

6. BID OPENING (Two Stage opening)

- i) Part-I, Pre-Qualification cum Techno Commercial (unpriced) bids of all bidders who submit their Bids as per the instructions by the due date and time as above and which are in conformity with the Enquiry instructions shall be opened online, on the specified bid opening date & time.
- ii) Part-II Price bids of bidders whose Part-I bids are found acceptable based on prequalification and techno-commercial evaluation only will be opened on a subsequent date. The Price bid opening date/time will be intimated to the bidders concerned.

7. CLARIFICATIONS

In case any clarifications are required, the bidder shall contact FACT thru' e-mail. FACT shall give such clarifications by e-mail. All clarifications provided shall be binding on bidder. No claim shall be entertained subsequently on the grounds of insufficient knowledge at the time of submission of tender. All clarifications/ correspondences with respect to this tender enquiry shall be made to the AGM (Materials) FACT as per NIT.

8. AUTHORISED REPRESENTATIVE OF TENDERER

The quotation shall contain the name, address, place of business of person or persons making the tender and shall be signed by tenderer with his digital signature. Partnership firms shall furnish online the full name of all the partners. It shall be signed in the partnership's name by all the partners or by duly authorised representative followed by the name and designation of the person signing. A copy of constitution of the firm with names of all partners shall be furnished. Online Quotation by a Corporation shall be signed by an authorised representative and a Power of Attorney in that behalf shall accompany the quotation.

9. AWARD OF CONTRACT

Contract will be awarded by FACT/FEDO to the tenderer whose tender has been determined to be in agreement with terms and conditions and schedules of Tender document and who has offered the lowest evaluated price provided that the Tenderer so selected for award has the capacity and resources to carry out the contract as judged by FACT/FEDO. Notwithstanding the above, FACT/FEDO reserves the exclusive right to accept or reject any or all tenders without any obligation or liability whatsoever to any of the tenderer.

10. ACCEPTANCE OF TENDER AND ISSUE OF LOI/ WORK ORDER

The acceptance of the bid will be intimated to the successful bidder, who will be called CONTRACTOR thereafter, through a Letter of Intent (LOI) or a Work Order. If an LOI is issued first, this will be followed by a Work Order. The duplicate copy of the Work Order will have to be returned to FACT/FEDO duly signed on all pages as token of acceptance of the Work Order. Within 15 Days from the receipt of LOI/ Work Order whichever is issued first, the CONTRACTOR shall remit the required Security Deposit for the Work. Also as prescribed in the LOI/ Work Order/ tender documents, the Contractor shall execute an agreement in stamp paper(INR 500) of the required value as per the Proforma prescribed by FACT for the satisfactory performance of the contract. In case the CONTRACTOR fails to accept the Work Order or fails to deposit the prescribed Security Deposit or fails to execute the Agreement or fails to commence the execution of the work within the time specified in the LOI/ Work Order/ Work to Proceed Notice, the LOI/ Work Order issued will be cancelled and the EMD already deposited by the Contractor shall be forfeited without any further reference to the Contractor and alternative arrangements shall be





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made at the risk and cost of the Contractor. The contractor whose EMD is forfeited is liable for delisting from FACT and also shall not be eligible to participate in the other tenders invited by the company at the sole discretion of FACT. Incomplete quotations are liable to be rejected.

11. SECURITY DEPOSIT#

#

The successful bidder (Contractor) shall be required to furnish an interest free Security Deposit (SD) equivalent to 10% of the contract value as per mode prescribed in the tender document/work (However if the amount exceeds Rs. 10,000/- Bank guarantee from a Nationalized / Scheduled Bank in INDIA is also accepted as SD).

12. FRAUD PREVENTION POLICY

#

Bidders shall comply with Fraud Prevention Policy of FACT 2012 (FPPF 2012). The said Policy is available in FACT Website www.fact.co.in

13. FACT GATE ENTRY PASS:

Entry pass to the contract workers will be issued by CISF. For entry pass, the contractor shall submit an application to CISF through work-executing department and HR department. The following documents shall be submitted along with the request.

- a. Copy of age proof
- b. Police clearance certificate
- c. Copy of bank passbook
- d. Copy of Aadhaar
- e. Two copies of passport size photographs
- f. Duly filled application for ESI and PF enrolment (for new members)

14. CHANGE IN CONSTITUTION

Any change in constitution of Contractor's firm shall be done only with prior information to FACT.

15 WAGES TO CONTRACTOR WORKERS:

The Contractor shall pay the wages to the workers only through banks. Proof of bank remittance certified by banks is to be submitted along with the wage roll to the work-executing department before 5 th of every month. A copy of the same proof of bank remittance is also to be attached along with the bills to Finance Department

16 DISPUTES

- a) Should there be any discrepancy, inconsistency, error or omissions in the contract or any of the contract documents the matter may be referred to the concerned Controlling Officer of FACT through the Engineer-in-charge who shall give his decision and issue to the contractor instructions directing in what manner the work is to be carried out. The decision of the Controlling Officer shall be final and conclusive and the contractor shall carry out the work in accordance with his decision.
- b) Settlement of Disputes shall be as per clause 21 of Special Conditions of Contract.
- c) Any legal proceedings relating to this contract shall be limited to courts of law under the jurisdiction of the Kerala High Court at Ernakulam.

17.0 MAKE IN INDIA





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- 17.1 Purchase preference shall be given to local suppliers in the manner specified in the latest Revision of Public Procurement (Preference to Make in India) Order 2017, and amendments thereto, subject to orders issued by Deptt. of Fertilisers, Govt. of India.
- 17.2 For the purpose of extending purchase preference as in Cl. 17.1 above, the minimum local content shall be 50% and margin of purchase preference shall be 20%, as defined in the above Orders, unless specified otherwise in the Enquiry.
- 17.3 To claim benefits under Make in India Order, the bidder shall provide self-certification or such other certificate(s) as prescribed in the Order, as applicable, that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.

18.0 INTEGRITY PACT(IP)

The bidders shall execute and submit an "Integrity Pact (IP)" with Fertilisers and Chemicals Travancore Ltd. along with the bid as per attached format. IP shall be implemented through the following Independent External Monitor (IEM) for the bid.

Mr. P.K. Vijayakumar, IRS (Retd), Madhavam, Vaniyan Lane, Punkunnam P.O, Thrissur – 680002 Mobile: 8547381122 Telephone: 0487-2381123 E-mail address: vkmenon78@gmail.com

19.0 CONCESSIONAL RATE OF CUSTOMS DUTY:-

Shall be as per clause 22 of Special Conditions of Contract

20.0 NOTE

Whenever any portion of the "Special Conditions of Contract" or "Notice Inviting Tender" (NIT) is repugnant to or at variance with any provision of this document "Instructions to Bidders", the respective provisions of "Special Conditions of Contract" or "Notice Inviting Tender" (NIT) shall prevail. Similarly whenever any portion of the "General Conditions of Contract" is repugnant to or at variance with any provision of this document "Instructions to Bidders", the respective provisions of "Instructions to Bidders" shall prevail.

21.0 EVALUATION METHODOLOGY

The subject work is indivisible and complete work shall be awarded to acceptable successful overall lowest bidder as per evaluation methodology described below. In other words, evaluation of bids shall be done on overall L-1 basis considering all applicable taxes &duties as under:

The financial comparison shall be based on NPV arrived at using the following:

a) NPV OF TOTAL LUMPSUM TURNKEY (LSTK) PRICE (CALLED LUMPSUM PRICE OF CONTRACT/CONTRACT PRICE)

MONTHLY CAPPED PAYMENT SCHEDULE: The Bidder shall furnish, month-wise payment schedule of its CONTRACT PRICE for 20 months project schedule and in a tabular form and as a cash flow curve. The month-wise phasing of expenditure indicated by Bidder will





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<u>Instructions to Bidders (e-Tender) – Single Stage Two Bid System in Two Cover</u> be used for evaluation and form part of the **CONTRACT for capping the monthly payment** based on the actual progress of work.

The cumulative monthly capped payment schedule has to be given by the bidders considering payment schedule/ terms of payment given elsewhere in the tender. Actual payment shall be made by Owner one month after the relevant invoice issue except the final payment which shall be made within 90 days from the due date.

The TOTAL LSTK PRICE / TOTAL LUMPSUM PRICE OF CONTRACT (Including all taxes and duties) & PERFORMANCE AND GUARANTEE TEST will be discounted at the rate of 10%PA, as per the cumulative monthly capped payment schedule submitted by the Bidder for the scheduled implementation period of 20 months to arrive at the Net Present Value (NPV) ie at Month Zero.

b) NPV OF POST WARRANTY ANNUAL MAINTENANCE CHARGES (PWAMC)

Bidder shall provide five years (05) years Post Warranty Annual Maintenance (PWAMC) after Defect Liability Period on the specified instruments/ equipments. Respective prices for each year of PWAMC shall be quoted in the respective format under Schedule of Prices. The Quoted price towards PWAMC shall be considered for evaluation as follows:

The Quoted PWAMC charges will be discounted at discount rate of 10% for the specified period of PWAMC starting from the completion of defect liability period (Final acceptance). The Net Value of PWAMC charges so obtained on achieving the scheduled Final acceptance shall be further discounted at the rate of 10% PA to arrive at the Net Present Value (NPV) i.e.at Month zero

c) NPV OF GUARANTEED WORKS COST (OPEX: Operating Expenses)

Please refer the relevant clause of the TPS under Performance guarantee test

Bidder/s shall furnish the guaranteed consumption figures of utilities (Works cost) as defined in the respective clauses under performance guarantee tests. Calculation of Works Cost shall be done as defined therein. The differential Works Cost (in comparison to Bidder quoting the lowest Works Cost) considering 365 stream days per year will be calculated and will be discounted at the discount rate of 10.0% PA for the period of 15 years of operation starting from Preliminary Acceptance.

The Net Value of differential works cost so obtained on achieving the scheduled Preliminary acceptance shall be further discounted at the rate of 10% PA to arrive at the Net Present Value (NPV) i.e. at Month zero

To summarize the above, the evaluated cost shall be ascertained as per following:

(a) NPV of quoted LSTK/LUMPSUM CONTRACT PRICE





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

Plus (+)

(b) NPV of quoted PWAMC charges

Plus (+

(c) NPV of Guaranteed Works cost (OPEX)

22.0 DIRECT OFFER WITHOUT INTERMEDIARY

Direct offer without the intermediary of an agent will only be considered. However, offer from the Indian arm/ subsidiary of a foreign company will be considered for evaluation in accordance with the tender conditions.





THIS DEED made......

TENDER FOR NEW 10000 MT AMMONIA STORAGE TANK AT FACT-CD.

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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

PROFORMA BANK GUARANTEE FOR EARNEST MONEY DEPOIST

(`in INR 500/- Stamp Paper)

The Fertilisers And Chemicals Travancore Limited, Udyogamandal - 683 501 Kochi, India

'day of by Bank (Name & Address of the branch of the bank) a

- 2. We, further undertake to pay to the OWNER any money so demanded notwithstanding any dispute or disputes raised by the TENDERER in any suit or proceeding before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.
- 3. The payment so made by us under this guarantee shall be a valid discharge of our liability for payment there under and the TENDERER shall have no claim against us for making such payment.
- 4. This guarantee is not revocable by notice during its currency but will continue with full force until all the obligations of the TENDERER under the terms of the Tender have been met and the OWNER discharges the guarantee accordingly. This guarantee shall not be affected by any change in the constitution of the BANK or OWNER or TENDERER nor shall this guarantee be affected by any change in the constitution of the OWNER / TENDERER by absorption with any other body or corporation and this guarantee will be available to or enforceable by such body or corporation.
- 5. The OWNER may without affecting BANK'S liabilities and obligations hereunder grant time or other indulgence to or compound with the TENDERER or enter into any agreement or composition or agree to forbear or forbear to enforce any of the terms and conditions of the said tender against the TENDERER or agree to vary any of the terms and conditions of the said tender.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- 7. We the Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OWNER in writing. Any notice by way of request, demand or otherwise hereunder may be sent by registered post to the BANK addressed as afore said and if sent by in registered post it shall be deemed to have been given at the time when it would be delivered in due course of post and in proving such notice when given by registered post it shall be sufficient to prove that the envelope containing the notice was sent by registered post and certificate signed by an officer of the OWNER that the envelope was so posted shall be conclusive.
- 8. Disputes/differences, if any, relating to or arising out of this Bank Guarantee, shall be settled by courts having jurisdiction over Udyogamandal in Kerala State, where the registered office of the company is situated and no other court shall have jurisdiction in the matter

We have the power to issue this guarantee in your favour and the undersigned has full power to do so

Full address of the Bank Issuing this Guarantee	For (Name of Bank):
	Authorised official:
Date & Bank Seal	Name & Designation





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Instructions to Bidders (e-Tender) – Single Stage Two Bid System in Two Cover (To be executed on 500/- Non-judicial Stamp Paper)

INTEGRITY PACT

Between

The Fetilizers and Chemicals Travancore Limited (FACT), a company formed and registered under the Travancore Companies Act IX to 1114 (Companies Act, 2013) and having its registered office at Eloor, Udyogamandal-683501, Kochi, Ernakulam District, Kerala, hereinafter referred to as "The Principal".

And		
 hereinafter referred to as	"The Bidder/	Contractor".

Preamble

In order to achieve these goals, the Principal will appoint an Internal External Monitor (EIM), who will monitor the tender process and execution of the contact for compliance with the principle mentioned above.

Section 1 - Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- a) No employee of the Principal, personally or through family members, will in connection with the tender, or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b) The Principal will, during the tender process, treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- c) The Principal will exclude from the process all known prejudiced/interested persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the India Penal Code / Prevention of Corruption Act, or if there be a substantive suspicion in this regard, the Principal will inform the Vigilance Officer and in addition can initiate disciplinary actions.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

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

- (1)The Bidder(s) / Contractor(s) commits themselves to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- a) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person, any material or immaterial benefit which he/she is not legally entitled to, i n order to obtain in exchange, any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b) The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
- c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s) / Contractor(s) of foreign origin shall disclose the name and address of the Agents / Representatives in India, if any. Similarly, The Bidder(s) / Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. All the payments made to the India agent/representative have to be in Indian rupees only.
- e) The Bidder(s) / Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to, or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

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

If the Bidder(s)/Contractor(s), before award or during the execution of has committed a transgression through a violation of Section 2 above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or to terminate the contract, if already signed, for such reason.





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<u>Instructions to Bidders (e-Tender) – Single Stage Two Bid System in Two Cover</u> Section 4 - Compensation for Damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous Transgression

- (1) The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in India conforming to the anti-corruption approach including Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process and appropriate action can be taken including termination of contract, if already awarded, for such reason.

Section 6 - Equal treatment of all Bidders / Contractors / Subcontractors

- (1)The Bidder(s)/Contractor(s) undertakes(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors/Suppliers and Subcontractors.
- (3) The Principal will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s) / Contractor(s) /Subcontractor(s)

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

Section 8 - Independent External Monitor/Monitors

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. It will be obligatory for him to treat the obligations and document of the Bidder(s)/Contractor(s) as confidential. He reports to the Chairperson and managing Director, FACT.





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to this project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/ Subcontractor(s) with confidentially.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or to take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendation. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The Monitor will submit a written report to the Chairman and Managing Director, FACT within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensation on the same terms as being extended to / provided to Independent Director on FACT Board.
- (8) If the Monitor has reported to the Chairman and Managing Director, FACT, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman and Managing Director, FACT has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by the Chairman and Managing Director, FACT

Section 10 - Other provisions





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Instructions to Bidders (e-Tender) - Single Stage Two Bid System in Two Cover

- (1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Udyogamandal, Kerala.
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (5) The Bidder / Contractor signing this "Integrity Pact" shall not approach the court while representing the matters to IEMs and he/she shall wait their decisions in this matter.

(For & On behalf of the Principal)	For & On behalf of
Bidder(s)/Contractor(s)	(OCC
(Office Seal)	(Office Seal)
Place:	
Date:	
Witness 1:	Witness 2:
(Name & Address)	(Name & Address)



THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED

VENDOR DATA FORM

SI. No.	Description		To be filled in by Vendor
	Company Profile		
1	Name of Vendor		
2	Name and address of Chic	ef Executive	
3	Address:	a: Regd. Office	
		b: Factory	
4	PIN Code		
5	Telephone Nos		
6	Tele Tax Nos		
7	E mail ID		
8	Contact Person		
9	Details of Local Office/ Re Agents	presentatives/ Liaison	
10	PAN No		
11	GST Registration No.		
12	Bank Details (Payment will Please Upload the Format with a cancelled Cheque)	ll be made through RTGS. t verified by Bank along	

(New Vendors please upload this format duly filled along with Cover.1 Technical Bid of the offer)

Master Data required for Online Payments (RTGS / NEFT / Fund Transfer)

To

The Deputy General Manager (Finance)
The Fertilizers and Chemicals Travancore LTD
Udyogamandal
Kerala

(Attach a cancelled Cheque leaf also)

1	Vendor Code, Name	
2	Income Tax PAN No	
3	Name of the Bank	
4	Address of bank branch	
5	City & State	
6	IFS Code of the bank branch	
7	Name of the bank branch	
8	Bank Account No.	
9	Account Holder's Name	
10	Email address	

For Name

Signature & Seal

Verification by the Bank

We hereby certify that all the above particulars relating to Bank Account are verified and found to be correct as per the records of the bank.

Signature and Seal of the Authorized signatory of the bank

(New Vendors please upload this format duly filled along with Cover.1 Technical Bid of the offer)



FORM OF BID

Page 1 of 3

ATTACHMENT- I

(to be furnished in the Letter-Head of the Bidder)

BIDDER to sign the enclosed FORM OF BID and submit it along with his quotation as required.





FORM OF BID

Page 2 of 3

ATTACHMENT- I

(to be furnished in the Letter-Head of the Bidder)

To

M/s.The Fertilisers and Chemicals Travancore Ltd. Cochin Division

Sub: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

Ref: Tender No. MM/172/E21032 dt 04.02.2020

Sirs,

Having examined the tender documents for the above named works including Conditions of Tender, Instructions to Bidders and Proforma of Contract along with Schedules A through Q, I/ We the undersigned offer to construct and maintain the above named work in accordance with the terms and conditions set forth in this tender comprising the following documents:

- Deviations, check list for uploaded documents, Vendor Data form & Master Data required for Online Payments etc
- 2. Form of Bid Attachment 1
- 3. NIT And Annexure To NIT
- 4. Commercial Questionnaire
- 5. Exception/ Deviation statement
- 6. Instruction to Bidders for E-Tendering
- 7. Attachment- IIA though H, Annexures 8 through 22
- General Conditions of Contract along with Schedules A through Q & drawings
- 9. Technical Documents
- 10. Earnest Money Deposit





Signature of Tenderer:

FORM OF BID

Page 3 of 3

ATTACHMENT- I

(to be furnished in the Letter-Head of the Bidder)

Until such time a contract is executed, this tender together with any later or amended tender as may be requested by you, correspondence in writing between the parties and any minutes of discussions shall constitute a binding contract between us.

Name & Position:	
Name & address of Contractor:	
Place & Date:	
WITNESS:	
Name: Address:	Position:





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COMMERCIAL QUESTIONNAIRE

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

Note:

- 1) The BIDDER shall submit reply to each query.
- 2) The BIDDER's reply/ confirmation as furnished in the Commercial Questionnaire (CQ) shall supersede the stipulation mentioned elsewhere in the bid.

SI. No.	OWNER'S/FEDO'S QUERY	BIDDER'S REPLY / CONFIRMATION
1.	Please confirm that Master Index, Commercial Part, Technical Part and Amendment, if any of NIT, duly signed and stamped on each page has been submitted, as token of having acknowledged the entire bidding document, along with the bid.	
2.	Please confirm that all pages of the Bid have been numbered in sequential manner.	
3.	Please confirm that you have studied complete Bidding Document including Pre-Qualification Criteria, Technical and Commercial Part and your Bid is in accordance with the requirements of the Bidding Document.	
4.	Please confirm that Technical and un-priced Commercial Bid has been submitted in 3 copies as specified in Instructions to BIDDERs.	
5.	Please confirm Bid Submission as per tender i.e. in Single Stage Two Bid System.	
6.	Please confirm that the Price Part does not include any terms and condition and Un-priced Price Schedule, duly signed and stamped, and indicating "Quoted/Not Applicable/Nil" against each head submitted in Envelope-II.	
	In case any terms and condition is mentioned in the price part, the same shall be treated as null and void	
7.	Please confirm your compliance to total scope of work mentioned in the Bidding Document. CONTRACTOR's scope shall include supply of all materials and services required for completion of Work irrespective of whether such materials and services are mentioned in the Bidding Document or not.	
8.	Please confirm your acceptance for Time Schedule as mentioned in Instructions to BIDDERs	
9.	Please confirm your acceptance for Payment Terms as per BIDDING Documents.	
10.	Please confirm that your bid is valid for 180 days from date of opening of Technical and un-priced Commercial Bid.	



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COMMERCIAL QUESTIONNAIRE

SI. No.	OWNER'S/FEDO'S QUERY	BIDDER'S REPLY / CONFIRMATION
11.	Please confirm EMD Validity as Bid Validity plus One (1) Month	
12.	Please confirm Damages for delay in completion as per Tender	
13.	Please confirm Damages for increase in works cost as per Tender	
14.	Please confirm Overall ceiling on total liability as per Tender	
15.	Please confirm Guarantee/Warranties as per Tender	
16.	Please confirm that your quoted price includes following :-	
	i) All type of taxes / levies as per provisions of Bidding Document.	
	ii) Insurance as per provision of Bidding Document.	
17.	Please confirm that your Bid is substantially responsive to the requirements of the Bidding Document and you have not stipulated any material deviation and submitted all details as specified in the Bidding Document.	
18.	Please confirm that while proposing the list of construction equipment's, you have considered the following equipment's:	
	- Cranes of adequate capacity.	
	- Induction Pipe Bending Machine.	
	- DG Sets.	
	- Compressors.	
	- Spray Painting Machines.	
	- Test pumps.	
	- Adequate nos. of Welding Machines.	
	- All relevant civil construction equipment.	
	- All Electrical equipment.	
	- All Instrumentation equipment.	
19.	Please confirm that you have proposed adequate project / site organization with qualified supervisory personnel having sufficient experience.	
20.	Please confirm that all costs resulting from safe execution of Work, such as safety induction, use of protective clothing, safety glasses and helmet, safety precaution taken during monsoon, or any other safety measures to be undertaken by the CONTRACTOR for execution of Work are included in the Lump sum Price.	



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COMMERCIAL QUESTIONNAIRE

SI. No.	OWNER'S/FEDO'S QUERY	BIDDER'S REPLY / CONFIRMATION
21.	Please confirm that all safety rules & regulations as mentioned in Bidding Document or notified at later date by OWNER during execution shall be adhered by CONTRACTOR within Lump sum Price, before opening of price bid	
22.	Please confirm that the following safety precautions shall be followed by CONTRACTOR as mandatory:	
	 Use of safety goggles while grinding. 	
	- Use of helmet / safety shoes.	
	- Crane movement area to be barricaded.	
	 Cylinders of flammable gases to be stacked upright 	
	- Earthling of equipment to be made proper.	
	 Toe boards to be provided in the Scaffolding platforms. 	
	 Excavations to be properly shored / slopped. 	
	- Safety net for construction	
	- Fall Arresters	
	- Safety Belts & Full Body Safety	
23.	Please confirm the following :-	
	"The planning schedule, S-curves, manpower estimates, construction equipment deployment schedule etc. submitted by the BIDDER with his bid are indicative and shall not be basis for extra compensation in case actual needs are higher.	
	Detailed planning schedule developed by CONTRACTOR after Contract award may be subject to fluctuations depending upon actual progress of the project and available Work front.	
	Co-ordination and making available by CONTRACTOR of all staff, manpower, construction equipment, tools, cranes, etc. and materials as required for a timely completion of all Work as per OWNER's construction and priority schedule and in accordance with the available Work front are to be included in the pricing".	
	Notwithstanding the above provision, the BIDDER shall submit these details in accordance with the volume of Work, which may be reviewed and commented by us during pre-award stage /post award stage.	



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COMMERCIAL QUESTIONNAIRE

SI. No.	OWNER'S/FEDO'S QUERY	BIDDER'S REPLY / CONFIRMATION
24.	Please furnish the bio data of key personnel including nominated Project Director, Project Manager, Engineering Manager, Engineering Coordinator, Purchase Manager, QA/QC Manager, Commissioning Manager, Commissioning Engineer etc. These will be reviewed and approved by Engineer-in-Charge as detailed in Attachment II-G.	
	Please furnish the proposed site organization chart as detailed in Attachment - IIF	
25.	Please confirm that your Lump sum Price includes cost towards third party inspection, if any.	
26.	Please note that the scope of this bid package is supply of basic design, detailed engineering, procurement, supply, fabrication, inspection by third party inspection agency (TPIA) as applicable, expediting, insurance, transportation of all equipment / materials to work site, storage, construction and erection of all civil structure, mechanical, electrical and instrumentation works, assembly and installation, obtaining all necessary statutory approvals, testing, mechanical completion, pre-commissioning, commissioning, performance guarantee test run including total project management for 10000 MT, DWDI, Ammonia Storage Tank along with associated facilities on a Lump-Sum Turnkey Basis on single point responsibility at FACT-CD, Ambalamedu for The Fertilisers & Chemicals Travancore Ltd (FACT-CD). The scope of work mentioned under various sections shall not be considered as limitative and CONTRACTOR's scope shall include completion of any activities of work not mentioned in the bid package but required to complete the Work in all respects and making it functional.	
27.	Please confirm that the CONTRACTOR shall supply all chemicals, consumables required for pre-commissioning / Commissioning as per provision of Bidding Document.	
28.	Deleted	
29.	The safety measures as mentioned in GCC/SCC shall not be considered as limitative. The CONTRACTOR will be required to develop their stringent safety measures and submit the same to Engineer-in - Charge with the provision of a dedicated safety group closely monitoring the construction activities in all working shifts.	
30.	Please confirm that your sub-contractor for construction shall be meeting the requirements as specified in Special Conditions of Contract including the provision of GCC. Also that the agency for executing Electrical work shall have a valid license for carrying out the work in the state of Kerala.	



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COMMERCIAL QUESTIONNAIRE

SI. No.	OWNER'S/FEDO'S QUERY	BIDDER'S REPLY / CONFIRMATION
31.	Whether your organization is Blacklisted / put on Holiday by any PSU, Govt. Organization. If yes please furnish the details	
F	or and on behalf of :	



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EXCEPTION / DEVIATION STATEMENT

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

BIDDER shall either stipulate in this form

- We make no exception/deviation to this bid OR
- 2. This bid is subject to the following exception/deviations and fill in the below

SI. No	Section No. of bid doc.	Page No.	Clause No.	Article , Paragraph No.	Requirement	Exception/ Deviation
1						
2						
3						

NOTES:

- 1. If unavoidable, BIDDER may stipulate deviations to the requirements of the Bidding Document only in this format.
- 2. Bidder shall furnish Technical and Commercial deviations, if any, separately. Also, Technical deviations shall be furnished separately for each discipline i.e. Process, General Civil, Structural, Architectural, Piping, Mechanical Equipment, Pressure Vessels, Rotating Equipment, Electrical, Instrumentation, Construction etc.
- 3. Any deviations stated elsewhere in the bid shall not be taken into account and may render the bid non-responsive and liable to be rejected.

For and on benair or:
Stamp & Signature:
Name:
Designation:
Date:



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PART I: COMMERCIAL

EXHIBITS

NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS





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EXHIBIT-1

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

EXPERIENCE CRITERIA

BIDDER shall furnish their LSTK experience details with reference to the work, which pre-qualify them in line with Pre-qualification Criteria mentioned in Annexure to NIT document attached.

1.0 DETAILS OF PROJECT REFERENCES FOR PQC ATTACHED IN ANNEXURE TO NIT

SL. NO.	DESCRIPTION	PROJECT – 1, 2 etc. (Separate sheets for each Project)
1.	1.1 TECHNICAL CRITERIA	
	PQ as per A) i) Purchase Order with detailed specifications ii) Completion and Performance Certificates from Client iii) Contact details of Client	
	OR	
	PQ as per B 1) Supporting documents to be submitted: i) Work Order issued in the name of Consultant for design criteria mentioned at B.1 showing detailed specifications ii) Completion and Performance Certificates from Client iii) Proven track records and credentials of the Consultant iv) The BIDDER shall furnish along with his bid the MOU/ Letter of Agreement / Letter of Consent with the proposed back-up consultant confirming the scope of work as defined in B.1 above pertaining to "Design & Engineering"	
	And	





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	For PQ as per B 2) a) Supporting documents to be submitted: i) Purchase Order with detailed specifications ii) Completion and Performance Certificate from Client iii) Contact details of Client	
	1.2 EXPERIENCE CRITERIA	
	Experience as per 1.2.1 for Similar works	
	Supporting documents to be submitted:	
	 i) Purchase Order with detailed specifications ii) Completion and Performance Certificate from Client iii) Contact details of Client 	
2.	Name of Owner	
	(a) Name and address of Owner's contact	
	person (h) Talanhana and Fau Na	
	(b) Telephone and Fax No.(c) Mobile No.(d) Email No.	
3.	(a) Date / month / year of award /	
	commencement of Project	
	(b) Date / month / year of scheduled	
	Commissioning of Project.	
	(c) Date / month / year of actual	
	Commissioning of Project.	
5.	Basis of work	As a Single Bidder/ Organization





DATE

TENDER FOR NEW 10000 MT AMMONIA STORAGE TANK AT FACT-CD.

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6.	work o	her document submitted in support viz. copies of order and completion certificate identifying the essful commissioning of project.					
	-						
2.0			_	CLAUSE 1.3 OF ANNEXURE TO NIT			
		oned in clause no. 1.3.1 of Annexure t		urnover for following years to be submitted			
	(1) 2019)-2020 INRCrore / US \$	million	/ (1) 2019: Foreign Currencymillion			
	(2) 2018	3-2019 INRCrore / US \$	million /	(2) 2018: Foreign Currencymillion			
		7-2018 INRCrore / US \$		· · · · · · · · · · · · · · · · · · ·			
	2.1	financial years submitted? YES /	NO Financial	urnover statements for the above three soundness certificate as per Clause 1.3.2 ES / NO			
	Note:						
	1.	Bidder shall furnish the experience consider suitable for their pre-qualifie to evaluate any other Project details.					
	2.	Bidder to note that this exhibit form salong with wherever applicable, copie					
	3.	Bidder to note that non-submission lead to rejection of their bid. It is documents shall be submitted along qualification shall be completed based any subsequent additional information.	s to be e with the ed on the	nsured that all relevant supporting bid in the first instance itself. Pre-			
	ST	AMP & SIGNATURE OF BIDDER	i				
	N	AME OF BIDDER	:				
				 -			



CONSTRUCTION DEPARTMENT	CORPORATE STAT	US OF BIDDER	OF BIDDER PAGE 1 OF 1			
TENDER No.: MM/172	2/E23465 dt 31-05-2021		ATTAC	CHMENT - II B		
A. IN CASE OF	INDIVIDUAL					
2 Name of Bu 3 Whether bu	and Father's Name: uisiness uisiness is registered nmencement of buisiness	(If yes, deta	ails are to be	e furnished)		
B. IN CASE OF	PARTNERSHIP					
2 Whether th 3 Date of esta	Idress of partner's : ne partneship is registered: ablishment of firm: rtnership deed to be attached:	Attached/N	lot Attached	d		
C. IN CASE OF	COMPANY LIMITED BY SHARES OR I	BY GUARANTEES				
2 Name & Ad 3 Date of reg 4 Copy of me	paid up capital: Idresses of Directors: istration of Company: morandum of article of of company to be attached:	Attached /	Not attache	ed		
D IN THE CAS	E OF ALL BIDDERS					
certificate t 2 Bankers cer 3 Solvency cer 4 Copy of aud	est Income tax clearence to be attached rtificate to be attached ertificate to be attached dited balance sheet for to be attached	Attached / Attached / Attached / Attached /	Not attache Not attache	ed ed		
Place:			·			
Date:		Signature o	t Tenderer:			



Attachment II C	0
DOC. NO.	REV.



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DETAILS OF SIMILAR WORKS EXECUTED

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

(Name of the project)

SL. NO	FULL POSTAL ADDRESS OF CLIENT AND NAME OF OFFICER IN- CHARGE WITH PHONE/CELL NO AND E- MAIL	DESCRIPTION OF THE WORK	VALUE OF CONTRACT	DATE OF COMMENCEMENT OF WORK	SCHEDULED COMPLETIO N PERIOD	ACTUAL COMPLETION DATE	REMARKS

STAMP & SIGNATURE OF BIDDER	: <u> </u>
NAME OF BIDDER	:
DATE	:



Attachment II D	0
DOC. NO.	REV.
Page 1 of 1	



CURRENT COMMITMENTS OF THE BIDDER

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

(Name of the project)

SL. NO.	FULL POSTAL ADDRESS OF CLIENT AND NAME OF OFFICER IN- CHARGE WITH PHONE/CELL NO AND E-MAIL	DESCRI PTION OF THE WORK	VALUE OF CONTRACT	DATE OF COMMENCEMENT OF WORK	SCHEDULED COMPLETION PERIOD	% COMPLETION AS ON DATE	REMARKS

STAMP & SIGNATURE OF BIDDER	<u>:</u>
NAME OF BIDDER	:
DATE	:

CONSTRUCTION DEPARTMENT	BIDDER'S SITE ORGANISATION		PAGE 1 OF 1
TENDER No: MM/172/	E23465 dt 31-05-2021	ATTAC	HMENT - II F
Form, show Place : Date:	nall attach his proposed site organisation chart in " Family ving the number and grades of field supervisory, administr and crafts personnel to be employed in the works Signature of	ative f Tenderer	
FACT ENG	GINEERING AND DESIGN ORGANISATION	F	EDO

CONSTRUCTION DEPARTMENT	BIDDER'S KEY PERSONNEL		PAGE 1 OF 1
TENDER No: MM/172/E	23465 dt 31.05.2021	ATT	ACHMENT - II G
Organisa	nall attach resumes of all proposed key personnel of his tion to be associated with the work, detailing their qualifi rience over the past 10 years	cations	
Place : Date:	Signature o	of Tenderer	
FACT ENG	SINEERING AND DESIGN ORGANISATION	F	EDO

CONSTRUCTION DEPARTMENT	BIDDER'S PROPOSED PROGRAMME OF WOR	K	PAGE 1 OF 1
TENDER No: MM/172/E23	3465 dt 31.05.2021	ATTACH	MENT - II H
respect to 0	hall attach his detailed programme of execution of works of the oreast o		
Place: Date:	Signature of Tenderer		
FACT ENG	INEERING AND DESIGN ORGANISATION	FI	EDO



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EXECUTION PLAN

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD,

AMBALAMEDU ON LSTK BASIS

1.0 BIDDER ORGANISATION

1.1 Company Organisation

Bid shall include a description of the organization, its management structure and organization chart of BIDDER's company with particular reference to the means whereby the execution of this project will be related to the overall company organization.

The BIDDER shall also furnish the name(s) of their partners, associated/ subsidiary companies & their activities, and whether any such associated/ subsidiary company will be involved in the execution of WORK, and if so, their scope thereof.

1.2 Project Organization

BIDDER shall give charts of organization, which he intends to use in the execution of the work. Such charts must show lines of authority and communication of senior personals who will be assigned to this work in BIDDER's home - office and other offices where WORK shall be performed (if any) and the lines connecting such Project Organization to the BIDDER's internal overall organization including partners (if any). The chart shall be supported by a narrative, which shall explain how the proposed organization will operate and in particular will provide the name of the location of the office(s) in which the Basic and Detail Engineering Design Packages of the plant shall be carried out.

If any parts of the Basic and Detail Engineering Design Packages are to be carried out in more than one office, then details of the distribution of the jobs between offices and coordination procedure shall also be presented.

A description of the facilities offered to the OWNER'S resident engineers.

2.0 Estimated project and Engineering man-hours

BIDDER shall give an estimate of the engineering man-hours and its break down for all activities

3.0 Methods and procedures

BIDDER shall summarize the methods and procedures that BIDDER intends to implement during the performance of the WORK. It shall include the proposed procedures such as Engineering, Procurement, construction strategy, WORK Progress Measurement, Pre-commissioning, Commissioning and Performance Guarantee Test Run of the PLANT, and Training.

BIDDER shall also furnish proposed procedures for the Project management, communication and method and frequency of reporting the progress of the WORK.

The final form for reports, which will be subject to OWNER's Approval, shall include as a minimum the following:

a) Planning and Scheduling





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EXECUTION PLAN

- b) Work Progress
- c) Safety and Security

NOTES:

- a) Sample reporting forms and other key standard forms shall be included.
- b) BIDDER shall state the extent to which he will be using computerized drafting, etc.

4.0 Job descriptions and personnel resumes

BIDDER shall include job descriptions and personnel resumes of his staff nominated to the key positions, including (where applicable) at least the followings, or BIDDER's equivalent:

Project Director

Process Engineering Coordinator

Construction Manager

Process Engineer

Project Engineering Coordinator

Senior Pre-commissioning Engineer

Senior Commissioning Engineer

Training coordinator and instructor

Construction Engineering Coordinator

Construction Quality Control Engineer Construction Project

Control Engineer Welding Specialists

Heavy Lift Rigging Specialist

Senior Specialist Engineers

Senior Planning Engineers

Materials Coordinators

Senior Construction Engineers

Senior Pre-commissioning Engineers

Warehousing Officer

Material Planning Engineers

Resumes shall give at least the name, age, nationality, education, professional exception/deviation and previous experience of each assigned personnel. Additionally, one alternative shall be offered for each position. BIDDER shall ensure that personnel to be deployed meet the minimum criteria specified in Annexure-32686/25/ANX/08A

BIDDER shall confirm that these key personnel will be made available to WORK on the Project as required by the schedule on full time basis.

BIDDER shall furnish Summary of its Deployment Schedule Personnel as per Annexure-32686/25/ANX/08B.

BIDDER understands that the said proposal represents the minimum deployment and the BIDDER acknowledges that the said deployment may have to be augmented with additional number and/or categories, if required, if directed by Engineer-in-Charge in order to complete the work within the completion schedule and quoted lump sum price.





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EXECUTION PLAN

5.0 Construction equipment and machinery

The BIDDER shall furnish details of construction equipment & machinery, testing equipment, tools/tackles, etc., which will be made available by the BIDDER at the Site. BIDDER shall furnish Summary of such details as per Annexure-32686/25/ANX/08C, Annexure-32686/25/ANX/08D.

Such list shall, in no way limit the CONTRACTOR's responsibility to arrange & provide any additional construction equipment, tools, tackle, etc., which might be required to execute and complete the WORK as per contractual schedule.

BIDDER shall furnish the procedures and his tools for erection of the Heavy Lift Equipment including tall columns.

6.0 Heavy lifts

BIDDER shall furnish his proposed, site transportation, lifting, along with preliminary rigging schemes and erection procedure for the heavy lifts.

Such plans / schemes shall be furnished along with detailed write -up on heavy cranes proposed to be deployed by CONTRACTOR, duly supported by relevant technical literature.

7.0 BIDDER experience & exception/deviation to perform the work

The BIDDER should have experience in the construction of similar Plants. The BIDDER should have successfully executed and completed construction of at least one similar Plant with his own project management and with complete responsibility of construction / erection and pre- commissioning.

The BIDDER shall furnish, as a part of his Tender Documents establishing the BIDDER'S experience and exception/deviation to perform the CONTRACT. Such documentary evidence shall also establish to OWNER's satisfaction that the BIDDER has the necessary financial, technical, project management capabilities and the requisite resources to execute the Work.

Such documentary evidence shall also be furnished for BIDDER'S proposed Subcontractors, if any. The BIDDER shall furnish, in a tabular from, a list of jobs of similar type and magnitude executed by them in the past. BIDDER shall also furnish details of their experience in erection of heavy lifts. The BIDDER shall furnish documentary evidence, establishing to OWNER satisfaction, that such jobs have been timely and successfully executed by them. The BIDDER shall also furnish the details of their present major commitments.

8.0 QA/QC Program

BIDDER shall furnish a summary description of their proposed QA/QC Program.

BIDDER shall furnish any other technical information / details as per the requirements of ITB.





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EXECUTION PLAN

9.0 Technical assistance

The extent of the Technical Services and Assistance to be rendered by CONTRACTOR for, commissioning and performance test run, etc., is to be proposed

10.0 Training

BIDDER shall furnish the following details regarding the Training of OWNER'S personnel:

- a) BIDDER's organisation set up for Training program.
- b) Training facilities available with the BIDDER to train the OWNER'S personnel in
 - Theory of process, operation, maintenance and manufacturing of products
 - Field (on the job) training in process, operation, maintenance and manufacturing of products, to train the personnel on the job.
 - Test procedure and other matters.
- c) The courses and their duration, number of attendees in each course and location where such courses will be held that the BIDDER would recommend OWNER to consider.
- d) BIDDER's experience of training the personnel for units similar to the subject PLANT.
- 11.0 Estimate of the number of personnel required for the safe and satisfactory operation of the Plant.

For and on beha	alf of:	 	 	
Stamp & Signati	ure:	 	 	
Name	:	 	 	
Designation	:	 	 	
Date	:	 	 	





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MINIMUM QUALIFICATION & EXPERIENCE OF KEY SUPERVISORY CONSTRUCTION PERSONNEL

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

SL.	CATEGORY	QUALIFICATION & EXPERIENCE
NO.		
1	RESIDENT CONSTRUCTION MANAGER / RESIDENT ENGINEER / SITE-IN-CHARGE	Degree in Engg. With minimum 20 years relevant experience in construction should successfully constructed & commissioned at least one process unit in hydrocarbon / fertilizer sector.
2	LEAD DISCIPLINE ENGINEER	Degree in relevant Engg. Discipline with minimum 15 years' experience in Construction or Diploma in relevant Engg. Discipline with minimum 20 years' experience in Construction.
3	LEAD WELDING / NDT ENGINEER	Degree in Mechanical Engg./Metallurgy with minimum 15 years' experience in Welding / NDT (Non-Destructive Testing) plus Level-II in RT (Radiographic Testing) or diploma in Mechanical Engg. / Metallurgy with minimum 20 years' experience in Welding / NDT plus Level-II in RT.
4	LEAD QA/QC ENGINEER	Degree in Engg. With 15 years Construction Experience of which 5 years should be as QA Manager.
5	LEAD PLANNING ENGINEER	Degree in Engg. With 15 years' experience in Planning & Scheduling.
6	LEAD SAFETY OFFICER	Degree / Diploma in Engg. And Diploma in Industrial Safety with min. 10 years relevant experience in Construction Safety.
7	WAREHOUSE-IN-CHARGE / MATERIALS MANAGER	Graduate in Science or Diploma in Engg. / Materials Management with 15 years' experience in Warehousing / Stores Management of similar nature.
8	DISCIPLINE SURVEYORS	Degree in relevant Engineering Discipline with minimum 3 years' experience in Construction or diploma in relevant Engineering Discipline with minimum 6 years' experience in Construction.
9	QUANTITY SURVEYORS	Degree in relevant Engineering Discipline with minimum 3 years' experience or diploma in relevant Engineering Discipline with minimum 6 years' experience in quantity estimation, field measurement, rate analysis etc. in construction field.





Note:

Date

TENDER FOR NEW 10000 MT AMMONIA STORAGE TANK AT FACT-CD.

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MINIMUM QUALIFICATION & EXPERIENCE OF KEY SUPERVISORY CONSTRUCTION PERSONNEL

BIDDER shall submit Name, Resume and Experience details of key

supervisory construction personnel as above along with their offer.

:	
:	
:	
	:





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DEPLOYMENT SCHEDULE OF SUPERVISORY PERSONNEL

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

01											D	EPL	OYN	1ENT	ΓSC	HED	ULE						
SL. NO.	DESCRITPION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
1	PROJECT MANAGEMENT																						
1.1	PROJECT MANAGER																						
1.2	PLANNING MANAGER																						
1.3	PLANNING ENGINEERS																						
2	RESIDUAL DESIGN AND DETAILED ENGINEERING																						
2.1	PROJECT ENGINEERING MANAGER																						
2.2	ENGINEERING COORDINATOR																						
2.3	ENGG. PERSONNEL FOR VARIOUS DISCIPLINE																						
2.3.1	CIVIL STRUCTURAL																						
(i)	ENGINEERS																						
2.3.2	PRESSURE VESSELS																						



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SL. NO.	DESCRITPION																			DI	EPLC	YMEN	IT SCHEDULE
NO.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
2.3.3	MECHANICAL EQPT/ ROTARY EQPT.																						
2.3.4	PIPING																						
(i)	ENGINEERS																						
2.3.5	ELECTRICAL																						
(i)	ENGINEERS																						
2.3.6	INSTRUMENTA-TION																						
(i)	ENGINEERS																						
2.3.7	MISCELL-ANEOUS																						
3	PROCUREMENT																						
3.1	PURCHASE																						
3.1.1	PURCHASE MANAGER																						
3.1.2	PURCHASE COORDINATOR																						
3.1.3	PURCHASE OFFICER																						
3.2	INSPECTION																						





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											D	EPL	OYN	1EN	ΓSC	HED	ULE						
SL. NO.	DESCRITPION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
3.2.1	INSPECTION MANAGER																						
3.2.2	INSPECTORS																						
3.3	EXPEDITING																						
3.3.1	EXPEDITING COORDINATOR																						
3.3.2	EXPEDITORS																						
3.4	CUSTOM CLEARANCE, IMPORT LICENCE, TRANSPORTA -TION PERSONNEL																						
4	SITE CONSTRUCTION																						
4.1	PROJECT MANAGER																						
4.2	CONSTRUC-TION MANAGER																						
4.3	CIVIL STRUCTURAL																						
4.3.1	LEAD ENGINEER																						





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SL. NO.	DESCRITPION																			DE	EPLO	YMEN	IT SCHEDULE
NO.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
4.3.2	SITE ENGINEER																						
4.3.3	SUPERVISORS																						
4.4	MECHANICAL WORKS																						
4.4.1	LEAD ENGINEER																						
4.4.2	SITE ENGINEER																						
4.4.3	SUPERVISORS																						
4.5	PIPING WORK																						
4.5.1	LEAD ENGINEER																						
4.5.2	SITE ENGINEER																						
4.5.3	SUPERVISORS																						
4.6	ELECTRICAL WORK																						
4.6.1	LEAD ENGINEER																						
4.6.2	SITE ENGINEER																						
4.6.3	SUPERVISORS																						
4.7	INSTRUMENTA-TION WORK																						





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SL. NO.	DESCRITPION																			DE	EPLC	YMEN	IT SCHEDULE
NO.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
4.7.1	LEAD ENGINEER																						
4.7.2	SITE ENGINEER																						
4.7.3	SUPERVISORS																						
4.8	QUALITY ASSURANCE/ QUALITY CONTROL																						
4.8.1	QC/QA MANAGER																						
4.8.2	INSPECTOR (CIVIL)																						
4.8.3	INSPECTOR (PIPING)																						
4.8.4	INSPECTOR (MECH EQPT)																						
4.9	SAFETY ENGINEER																						
4.10	SITE ENGINEERING WORKS																						
4.10.1	ENGINEERS																						
4.10.2	SUPERVISORS																						





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SL. NO.	DESCRITPION																			DE	EPLO	YMEN	IT SCHEDULE
140.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
4.11	COMPUTER ENGINEER																						
4.12	ADMINISTRA – TION MANAGER																						
4.13	MISCELLAN-EOUS																						
4.14	WAREHOUSE PERSONNEL																						
4.15	MATERIAL MANAGER																						
4.16	COMMISSION-ING																						
i)	COMMISSION-ING COORDINATOR																						
ii)	COMM ENGINEER (SHIFT- IN- CHARGE)																						
iii)	CONTROL ROOM COORDINATOR																						
iv)	FIELD SUPERVISOR																						





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SL. NO.	DESCRITPION																			DE	PLO	YMEN	IT SCHEDULE
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
v)	TECHNICIAN																						

For and on behalf of		
Stamp & Signature	:	
Name	:	
Designation	:	
Date	:	





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DEPLOYMENT SCHEDULE OF CONSTRUCTION EQUIPMENT

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

SL.	DESCRIPTION	CAPA -CITY														DE	PLC	YME	NT	SCH	EDU	LE							
NO.		'	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						TOTAL
1	CRANES																												
1.1	2000 MT																												
1.2	1000 MT																												
1.1	500 MT																												
1.2	300 MT																												
1.3	150 MT																												
1.4	75 MT																												
1.5	50 MT																												
1.6	20 MT																												
1.7	15 MT																												
1.8	10 MT																												
1.9	5 MT																												
2	DIESEL GENERATOR S																												
2.1	500 KVA																												



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	DESCRIPTION	CAPA	l				DL	FLV	011	VI I	41 3	СП	LD	JLL	OI-			IKU					IVIL	141					
SL.	DEGOINI HON	-CITY														DΕ	PLC	YME	:NI	SCH	⊨DU	ILE -							
NO.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						TOTAL
2.2	300 KVA/250KV																												
2.3	150 KVA/125KV																												
3	COMPRESSO RS																												
3.1	600 CFT																												
3.2	350 CFT																												
4	WELDING M/CS																												
4.1	DIESEL WELDING M/C																												
4.2	DIESEL GENERATOR																												
4.3	WELDING TRANS FORMERS/RE C-TIFIERS																												
4.4	TIG WELDING M/CS																												
5	GRIT BLASTING M/CS																												
6	SPRAY PAINTING M/CS																												
7	STRESS RELIEVING M/CS																												



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SL.	DESCRIPTION	CAPA -CITY														DE	PLO	YME	NT S	SCHI	EDU	LE							
NO.		'	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						TOTAL
8	RADIO- GRAPHY M/CS																												
9	TEST PUMP																												
10	WATER PUMP																												
11	TRANSPORTA -TION EQPT																												
11.1	TRACTOR - TRAILOR																												
11.2	TRUCKS																												
11.3	BUS																												
12	JACKS																												
12.1	MECHANICAL																												
12.2	HYDRAULIC																												
13	CIVIL																												
13.1	EXCAVATORS																												
13.2	DUMPERS																												
13.3	BATCHING PLANT																												
13.4	CONCRETE PUMP CAR																												



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SL.	DESCRIPTION	CAPA -CITY														DE	PLO	YME	NT S	SCH	EDU	LE							
NO.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						TOTAL
13.5	TRANSIT MIXER																												
13.6	MIXER																												
13.7	VIBRATORS																												
13.8	COMPACTOR S																												
13.9	THEODOLITE S																												
14.0	OTHERS																												
14.1	INSULATION TESTING EQUIPMENT																												
14.2	SECONDARY INJECTION TESTING KIT																												
14.3	METERS, TOOLS & TACKLES ETC.																												
14.4	CALIBRATION EQUIPMENT																												1
14.5	OTHER TOOLS & TACKLES																												
14.6	MULTI																												



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DOC. NO. REV.

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SL.	DESCRIPTION	CAPA -CITY														DE	PLO	YME	NT:	SCH	EDU	LE							
NO.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21						TOTAL
	METERS CALIBERAT- ORS ETC.																												
14.7	INDUCTION PIPE BENDING PLANTS																												
14.8	METALOGRAP HY																												
14.9	SPECTRO- METERS																												

For and on behalf of		
Stamp & Signature	:	
Name	:	
Designation	:	
Date	:	



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DETAILS OF EQUIPMENT PROPOSED TO BE USED FOR TENDERED WORK

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

The BIDDER confirms that, they shall use the following MAJOR equipment owned by the BIDDER for the work, if awarded to them:

SI. No.	Description	Quantity. (Numbers)	Make	Capacity	Owner	Approximate date when it will be deployed at site	Period of retention at site

For and on behalf o	f:
Stamp & Signature	:
Name	:
Designation	:
Date	:





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FORMAT FOR BIDDER'S QUERIES FOR PRE-BID DISCUSSION

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

SL. NO.	REFERE	NCE OF BI	DDING DOC	UMENT	BIDDER'S QUERY	OWNER'S / PMC REPLY
	Part/ Sec	Page No.	Clause No.	Subject		

For and on behalf of		
Stamp & Signature	:	
Name	:	
Designation	:	
Date		

NOTE: The Pre-Bid Queries shall be sent through e-mail to:





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DESCRIPTION OF THE PERFORMANCE GUARANTEES

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

The BIDDER shall submit all the data pertaining to Performance Guarantees as sought in detail under Part-II Technical of the NIT.

For and on behalf of:		
Stamp & Signature	:	
Name	:	
Designation	:	
Date		





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DECLARATION BY THE BIDDER REGARDING BIDDING DOCUMENT

SUBJECT:	STORAGE	MT DOUBLE WALL DOUBLE INTEGRITY AMN ANK AND ASSOCIATED FACILITIES FOR FAC DU ON LSTK BASIS	
TENDER Commerc Bidding de	NO: MM/172/ ial & Technica ocuments and	(Name of the BIDDER) here gone through and understood the Bidding Documen 23645 dt 31.05.2021, (including but not limited to) to Requirements/ Specifications in Part-I and Part-II of the tamendments, if any, and that our Bid has been prepare with the requirements stipulated in the said documents.	ts, he he ed
the Biddin stamped of event of a	g documents on each page	ble of Contents of Bidding Documents, Part-I and Part-II and amendments, if any, as part of our Bid duly signed a token of our acceptance. Further we undertake that in to us, all the parts shall be considered for constitution	nd he
For and o	n behalf of:		
Stamp & S	Signature :		
Name	:		
Designation	on :		
Date	:		

NOTE: This declaration should be signed by the Bidder's authorized representative who is signing the Bid.





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PROFORMA OF CERTIFICATE OF NON-INVOLVEMENT OF AGENT

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

Where Indian Agent/Consultant/Representative/Retainer/Associates is not involved, the BIDDER shall certify in the proforma given below on its letterhead.

This is to certify that we have not engaged/involved any Indian agent/representative/consultant/retainer/Associates who is not our employee for the purposes of accompanying bid or any resultant Contract and therefore, no Agent's/Retainer's/representative's/consultant's/associate's commission is payable in India or abroad against or in connection with any resultant Contract.

For and on benait of:		
Stamp & Signature	:	
Name	:	
Designation	:	
Date	:	





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FORMAT OF LETTER OF WAIVER OF CONDITIONS / DEVIATIONS (ON COMPANY'S LETTERHEAD)

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

TENDER NO:-- MM/172/E23465dt 31.05.2021

We ** hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other condition whatsoever of the Bidding Documents and all Addenda / Corrigenda / Clarifications issued by OWNER.

We further hereby waive, withdraw and abandon any and all deviations, variations, objections or reservations whatsoever hereto set out, given or indicated in our offer, clarifications, correspondence, communications, or otherwise with a view that the final price bid submitted may be treated to conform to, in all respects, with the terms and conditions of the said tender documents including all Addenda / Corrigenda / Clarifications.

For and on behalf of**			
Stamp & Signature***		:	
Name		:	
Designation	:	•••••	
Date	:		

- ** Here fill in the name of BIDDER.
- *** The Letter of Waiver must be signed by the person (s) authorised to sign and submit the offer.





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CONTENTS OF BID AND CHECK LIST

SUBJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

BIDDER is requested to fill this check list and ensure that all details /documents have been furnished under relevant section as called for in the Bidding Document duly filled in, signed & stamped.

Please tick the box and ensure compliance:

PART-I

Pre-Qualification Bid: Annexure to NIT

i)	Letter of submission and synopsis of the proposal Submitted	
ii)	Organization Profile Submitted	
iii)	Article of Association of the Company or Board Resolution Submitted	
iv)	MOU between the Detailed Engineering Consultant (in case the Bidder themselves are not the detailed designer) and Bidder Submitted	
vi)	Documents as per Exhibit-1 Submitted	
vii)	Deleted	
viii)	Solvency Certificate	
	Submitted	





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CONTENTS OF BID AND CHECK LIST

PART-II Technical and Un-priced Commercial Bid:

(A) UN	IDER SECTION –I	
(A. 1)	Letter of submission and Synopsis of the Proposal Submitted	
(A.2)	Photocopy of EMD/Earnest Money Deposit (EMD) as submitted in Envelop-I Submitted.	
(A.3)	Vendor Data Form and Details for E-payment	
(A.4)	Form of Bid as per Attachment-I Submitted	
(A.5)	Commercial Questionnaire as per 32686/25/ANX/03	
(A.6)	Corporate status of Bidder as per Attachment-IIB Submitted	
(A.7)	Power of Attorney in favour of the person who has signed the bid. Submitted.	
(A.8)	Details of Similar Works Executed as per Attachment-IIC	
(A.9)	Current Commitments of the Bidder as per Attachment-IID	
(A.10)	Bidder submitting their Bid shall not be under liquidation, court receivership or similar proceedings. Submitted	
(B) UN	DER SECTION – II	
(B.1)	Detailed execution philosophy of work as per 32686/25/ANX/08, 32686/25/ANX/08A, 32686/25/ANX/08B, 32686/25/ANX/08C, 32686/25/ANX/08D Submitted.	
(B.2)	Description of the Performance Guarantees as per 32686/25/ANX/11 Submitted.	
(B.3)	Bidder's Proposed Schedule as per Attachment-IIH Submitted.	
(B.4)	Declaration by the Bidder Regarding Bidding Document as per 32686/25/ANX/13 Submitted.	
(C.) UN	IDER SECTION –III	





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CONTENTS OF BID AND CHECK LIST

(C.1)	Proforma of Certificate Of Non-Involvement of Indian Agent as per 32686/25/ANX/18 Submitted.			
(C.2)	Format of Letter of Waiver of Conditions/Deviations as per 32686/25/ANX/19 Submitted.			
(C.3)	The Bidder shall give a declaration that it /they have or had not been banned, or blacklisted / de-listed by any Government / Quasi-Government / Public Sector Undertaking. Submitted			
(D) UN	DER SECTION -IV			
(D.1)	Blackened copy of Schedule of Lump sum Prices indicating "Quoted/Not Applicable" against each head and duly stamped & signed on each page, strictly as per as per Schedule F-FormF1 of GCC, failing which bid may be rejected. Submitted			
(E) UNI	DER SECTION – V			
(E.1)	Technical Details/ documents specified under "Schedule C of GCC". Submitted			
(F) UNDER SECTION – VI				
(F.1)	EXCEPTIONS/DEVIATIONS			
	The OWNER wishes to receive fully compliant bids. Exception/Deviations may only be made in relation to requirements of OWNER, which the BIDDER feels unable to comply with under any circumstances or at any price. If the BIDDER wishes to make any exception/deviations, this must be done by listing the full details of each exception/deviation in 32686/25/ANX/04. Unless an entry appears in the list of exception/deviations in 32686/25/ANX/04, OWNER will assume and consider that BIDDER has no exceptions or deviations to the Tender Documents			
	Schedule of Deviations (if any) to the commercial and Technical bid documents, shall be submitted separately, as per 32686/25/ANX/04. Also, Technical deviations must be given separately for each discipline. Submitted			
(G) UNDER SECTION – VII				
(G.1)	Vendor List prepared by Bidder for items not covered in OWNER's Vendor List. Submitted			





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CONTENTS OF BID AND CHECK LIST

(H) UNDER SECTION – VIII				
(H. 1) Bidder shall furnish tentative manpower requirement with break up for operation of plant during commissioning, trial runs and guarantee tests.				
Bidder shall also furnish a tentative break up of manpower requirement for the normal operation of the plant as per best operation practice.				
Submitted				
(I) UNDER SECTION – IX				
(I.1) Any other information required in the Bidding Documents or considered relevant by the Bidder, Submitted				
(J) UNDER SECTION – X				
(J.1) Contents of Bid And Check List as per 32686/25/ANX/21				
(K) UNDER SECTION – XI				
One set of Tender Documents Part I-Commercial and Part II-Technical along with subsequent addendums if any, duly signed and stamped on each page in original as a token of its acceptance. Submitted				
For and on behalf of ;				
Stamp & Signature :				
Name :				
Designation :				
Date :				





Ref. No.

TENDER FOR NEW 10000 MT AMMONIA STORAGE TANK AT FACT-CD.

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Date:

ACKNOWLEDGEMENT CUM CONSENT LETTER

FERTILISERS AND C UDYOGAMANDAL P		
Kind Attention:	DGM (Materials) PH: E-mail:	
	ATED FACILITIES	WALL DOUBLE INTEGRITY AMMONIA STORAGE S FOR FACT-CD, AMBALAMEDU ON LSTK BASIS 1.05.2021)
Dear Sir,		
•	•	FACT's Website the complete set of Bidding Document cal, for subject works for our use in preparing the Bid.
We undertake that th purpose for which the		above Tender Document are to be used only for the
	oid as requested fo o our quotingoffice.	or the subject works and furnish the following details
i.Postal Addres	SS	
ii. TelephoneNu	mber	
iii. Telefax Nur	nber	
iv. Contact Per	son	





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ACKNOWLEDGEMENT CUM CONSENT LETTER

	v. Designation of ContactPerson	
	vi. Mobile no.	
	vii. E-mail Address	
B)	Contact Person, preferably at anywhere in INDIA for FOREIGN	Delhi and/or Mumbai for INDIAN BIDDERS and N BIDDERS.
	i.Postal Address	
	ii. TelephoneNumber	
	iii. Telefax Number	
	iv. Contact Person	
	v. Designation of Contact Person	
	vi. Mobile No.	





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ACKNOWI	LEDGEMENT	COM C	ONSENT	FTTFR

vi. E-mail address			

Note: BIDDER is requested to furnish the details mentioned at (A) and (B) immediately after receipt of Bidding Document.





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CENERAL.	CONDITIONS	OF CONTR	A CT
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CONTENTS

ARTICLES

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- 2. PERFORMANCE BOND
- 3. SCOPE OF SERVICES
- 4. TIME SCHEDULE
- 5. TECHNICAL DOCUMENTS
- 6. OWNER/CONSULTANT'S REPRESENTATIVE
- 7. CONTRACTOR'S REPRESENTATIVE
- 8. CONTRACTOR TO INFORM HIMSELF
- 9. SUPPLIES BY OWNER/CONSULTANT
- 10. MATERIALS BY CONTRACTOR
- 11. QUALITY OF WORK
- 12. INSPECTION BY OWNER/CONSULTANT
- 13. PRICE
- 14. TERMS OF PAYMENT
- 15. CHANGE IN WORK
- 16. VARIATIONS & OMISSIONS
- 17. ACCESS TO SITE
- 18. CONSTRUCTION POWER AND WATER
- 19. CONSTRUCTION EQUIPMENT
- 20. ACCOMMODATION AT SITE
- 21. TESTS ON COMPLETION AND TAKING OVER
- 22. TEMPORARY STRUCTURES
- 23. INSURANCE AND LIABILITY FOR DAMAGES
- 24. WORKING HOURS
- 25. SAFETY



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- 26. OWNER/CONSULTANT'S REGULATIONS
- 27. STATUTORY REGULATIONS
- 28. LAWS RELATING TO LABOUR
- 29. APPRENTICES ACT
- 30. WARRANTY AND MAINTENANCE PERIOD
- 31. GUARANTEES FOR TIME-SCHEDULE
- 32. DELAY BY OWNER/CONSULTANT
- 33. SPECIAL CONDITIONS OF CONTRACT
- 34. SUB-LETTING AND ASSIGNMENT
- 35. CLAIMS
- 36. PATENTS
- 37. SECRECY
- 38. NON-WAIVER
- 39. LANGUAGE AND UNITS
- 40. FORCE MAJEURE
- 41. SETTLEMENT OF DISPUTES AND ARBITRATION
- 42. LAWS AND LEGAL JURISDICTION
- 43. SUSPENSION AND TERMINATION
- 44. RECOVERY OF DUES FROM CONTRACTOR
- 45 CONSEQUENTIAL LOSSES
- 46. EFFECTIVE DATE AND VALIDITY
- 47. NOTICES AND ADDRESSES
- 48. ENTIRE AGREEMENT



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SCHEDULES

SCHEDULE - A : **SCOPE OF WORK**

SCHEDULE - B : PROGRAMME OF WORK

SCHEDULE - C : TECHNICAL DOCUMENTATION

SCHEDULE - D : SITE CONDITIONS

SCHEDULE - E : SUPPLIES BY OWNER / CONSULTANT

SCHEDULE - F : SCHEDULE OF RATES FOR EXTRA ITEMS

SCHEDULE - G : PAYMENT SCHEDULE

SCHEDULE – H : SITE FACILITIES

SCHEDULE - L ; PROFORMA BANK GUARANTEE FOR

PERFORMANCE BOND

SCHEDULE - N ; PROFORMA FOR RELEASE CERTIFICATE

SCHEDULE - P : **SAFETY PRACTICES**

SCHEDULE - Q : SPECIAL CONDITIONS OF CONTRACT

FACT

GENERAL CONDITIONS OF CONTRACT

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ARTICLE-1 DEFINITIONS

The following expressions shall have the meanings specified against the respective item, wherever used in this document, unless repugnant to the context and meaning thereof.

- 1.1 CONTRACT means this Agreement including the Articles, Schedules, Annexes and Appendices as listed in the List of Titles forming part hereof and any written amendments thereto executed by authorized signatories on behalf of the parties hereto.
- 1.2 'DATE OF CONTRACT' means the Date on which CONTRACT is signed by either party after signature by the other.
- 1.3 'WORK' means all duties, responsibilities and obligations to be discharged by CONTRACTOR pursuant to CONTRACT.
- 1.4 'EQUIPMENT' means any item of plant and machinery, equipment accessory or thing to be supplied by OWNER and erected / installed by CONTRACTOR or to be supplied and erected / installed by CONTRACTOR.
- 1.5 'PROJECT' means the facility being set up by OWNER as per details and location in SCHEDULE-D.
- 1.6 'SITE' means the land in possession of OWNER where PROJECT is being set up and WORK is to be performed by CONTRACTOR.
- 1.7 'INITIAL CONTRACT PRICE' means the value of WORK contracted initially as per SCHEDULE-F and excluding value of EQUIPMENT, services and any material provided by OWNER/CONSULTANT free of cost to CONTRACTOR.
- 1.8 'CONTRACT PRICE' means the aggregate sum payable by OWNER / CONSULTANT to CONTRACTOR for work performed as per CONTRACT but excluding value of EQUIPMENT, services and any material provided by OWNER/CONSULTANT free of cost to CONTRACTOR.
- 1.9 'OWNER/CONSULTANT'S REPRESENTATIVE' shall have same meaning as defined in Article-6.1 hereof.
- 1.10 'ENGINEER-IN-CHARGE' shall have same meaning as defined in Article-6.2 hereof.
- 1.11 'CONTRACTOR'S REPRESENTATIVE' shall have the same meaning as defined in Article-7 hereof.



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1.12 'ZERO DATE' means the date on which CONTRACTOR'S responsibilities for time- schedule commence as defined in Article-4.1.

ARTICLE-2 PERFORMANCE BOND

- 2.1 Within fifteen (15) days of the ZERO DATE, CONTRACTOR shall provide OWNER with a Bank Guarantee as per proforma given in SCHEDULE-L hereof, from a Nationalized Bank in India for a sum calculated at ten (10) percent of the initial Contract Price, towards security for due and faithful performance of CONTRACTOR. The Bank Guarantee shall be kept valid until all obligations of CONTRACTOR including the warranties vide Article-30 are fulfilled and a discharge certificate is issued by OWNER/CONSULTANT (also refer Schedule–B).
- 2.2 However, in case the amount of Performance Bond is less than Rs.10, 000-CONTRACTOR shall deposit with OWNER either in cash or as Demand Draft drawn in favour of OWNER and payable at State Bank of India, Udyogamandal, Kerala State, for a sum calculated at ten (10) percent of the initial Contract Price in lieu of the Bank Guarantee referred to in Article-2.1 within 15 days of ZERO DATE. No interest is payable by OWNER/CONSULTANT to CONTRACTOR for such deposits.

ARTICLE-3 SCOPE OF SERVICES

- 3.1. CONTRACTOR shall carry out WORK as described in detail in the SCHEDULE-A, Schedule of Work, all in conformity with the drawings, specifications, codes, standards and instructions provided by OWNER/CONSULTANT from time to time or specified herein as applicable.
- 32. CONTRACTOR'S responsibility includes preparation of any detailed working drawings, cutting diagrams, fabrication drawings and / or such other technical documentation as may be necessary to elaborate the information provided by OWNER/CONSULTANT in the manner described in Article-5.4 hereof.
- 33. CONTRACTOR shall also purchase and provide for use in carrying out WORK, pre-fabricated or otherwise, such items of materials and supplies as are required for carrying out WORK in addition to EQUIPMENT and materials directly provided by OWNER/CONSULTANT.
- 3.4. The quantities indicated in SCHEDULE-A and / or Schedule-F are only approximate and CONTRACTOR shall carry out all items of WORK in required quantities as per drawings and specifications provided by OWNER/CONSULTANT, subject to provisions of Article-15 hereof.
- 3.5. Work shall be executed with all due diligence, in the manner specified



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herein, to the satisfaction of OWNER/CONSULTANT'S REPRESENTATIVE within the time schedule agreed to herein for the respective item. CONTRACTOR shall post at SITE appropriate number of qualified and competent supervisory staff for day-to day supervision of work.

- 36. Workmen engaged by CONTRACTOR shall be qualified, experienced and competent for the respective item of works and will be subject to craft-test prescribed by ENGINEER-IN-CHARGE. Where necessary, supervisors and workmen engaged by CONTRACTOR shall hold licenses / permits for carrying out the respective work.
- 37. CONTRACTOR further undertakes to co-operate with OWNER / CONSULTANT as well as other Contractors appointed by OWNER / CONSULTANT and operating at SITE and agrees to freely exchange technical information as may be reasonably asked for by OWNER / CONSULTANT.

ARTICLE-4 TIME-SCHEDULE

- 4.1. CONTRACTOR shall carry out work in a phased manner and hand over the respective items to OWNER/CONSULTANT after carrying out such tests as are prescribed herein within the programme given in SCHEDULE-B, PROGRAMME OF WORK. The responsibilities of CONTRACTOR in respect of programme vide SCHEDULE-B will be effective from the date on which Letter of Intent has been issued by OWNER/CONSULTANT and indicated as 'ZERO DATE' in the said SCHEDULE-B, provided that OWNER / CONSULTANT gives CONTRACTOR, any mobilisation advance if agreed to herein within 15 days of receipt from CONTRACTOR the related invoice along with the Performance Bond vide Article-2 hereof and the Bank Guarantee towards Security for such advance payment vide Article-14 hereof, both in the prescribed proforma.
- Time is the essence of the CONTRACT and CONTRACTOR understands the necessity of achieving the stage-wise targets in the specified sequence as set-forth in SCHEDULE-B and hereby undertakes to mobilise the required resources and exercise due diligence to adhere to them. During the implementation of CONTRACT, OWNER/CONSULTANT may issue to CONTRACTOR, where applicable, instructions/ requirements in respect of priorities and sequence in the overall interest of the PROJECT and CONTRACTOR shall fully co-operate with OWNER/CONSULTANT in following these instructions and submit to OWNER/CONSULTANT detailed working programmes for achievement of these, which shall be reviewed and approved by ENGINEER-IN-CHARGE.
- 43. Within 30 days of ZERO DATE, CONTRACTOR shall give to OWNER / CONSULTANT in triplicate a detailed programme for assembling materials, submission of fabrication drawing/cutting diagrams, etc. mobilisation of Construction Equipment, Tools and Tackles, mobilisation of skilled and unskilled labour in various categories / disciplines at various phases of



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work, pre-fabrication in shop, pre-fabrication at SITE, assignment of supervisory personnel and such other activities, matching with the Programme of work vide SCHEDULE-B. In the event OWNER/CONSULTANT is not satisfied that the programme proposed by CONTRACTOR is adequate to meet targets set forth in SCHEDULE-B, CONTRACTOR shall modify the programme suitably to the satisfaction of OWNER/CONSULTANT and carry out the activities accordingly.

- 4.4 CONTRACTOR recognizes possibility of inclement weather conditions at SITE and agrees to take all reasonable precautions and measures necessary to permit execution of WORK as per agreed programme despite such adverse conditions and CONTRACTOR shall not be entitled for any additional payment what so ever, on this account.
- 4.5 CONTRACTOR shall not be entitled for extension of time schedule for any reason whatsoever except as provided in Articles -15.7, 32.2 and 40.3 hereof.

ARTICLE-5 TECHNICAL DOCUMENTS

- 5.1. The Technical Documents enclosed as part of SCHEDULE-C hereof are, unless otherwise specified, preliminary and typical and are intended only to generally represent the nature of WORK to be executed. OWNER / CONSULTANT will be issuing to CONTRACTOR, from time to time, final and more detailed drawings and documents as are listed in SCHEDULE-C as also new drawings whenever necessary to depict the scope of work. CONTRACTOR shall execute WORK only based on documents bearing the stamp "GOOD FOR CONSTRUCTION".
- 5.2 Documents once issued by OWNER/CONSULTANT for construction may subsequently be revised without prejudice to Article-15 hereof; and as soon as the revised issues are received CONTRACTOR shall withdraw the previous issue from the field and return to OWNER/CONSULTANT for cancellation.
- 5.3 CONTRACTOR shall carryout the WORK in strict conformity with the drawings, specifications and such other documents and instructions provided by OWNER/CONSULTANT and standards and codes of practice prescribed by OWNER/CONSULTANT for the respective items of WORK. Where OWNER/CONSULTANT'S own standards are referred to, the same will be provided by OWNER/CONSULTANT; but where other published standards/codes of practice are prescribed, CONTRACTOR shall make own arrangements to be equipped with copies of such documents for use in execution of WORK and failure to do so shall be deemed negligence in performance of CONTRACT. In the event of any conflict or contradiction between two or more of the documents provided any OWNER/CONSULTANT or between such documents and the prescribed codes/standards, CONTRACTOR shall bring the same to the attention of ENGINEER-IN CHARGE as soon as it is noticed by CONTRACTOR; and the decision of the ENGINEER-IN-CHARGE shall be followed.

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Wherever necessary, CONTRACTOR shall prepare detailed working 5.4 drawings, cutting diagrams, fabrication drawings and/ or such other technical documents all in conformity with Technical Information provided by OWNER/CONSULTANT and as may be necessary for execution of WORK and submit same to OWNER/CONSULTANT in required number of copies well in advance in commencement of related WORK. OWNER/CONSULTANT shall return one copy to CONTRACTOR with comments, if any, within Ten (10) working days of receipt from CONTRACTOR and CONTRACTOR shall execute WORK only based on documents reviewed/ approved by OWNER/CONSULTANT. However, CONTRACTOR is solely responsible to ensure that WORK is executed as per designs; drawings, specifications and other technical information provided by OWNER/CONSULTANT and review /comments by OWNER/CONSULTANT in the aforesaid manner of CONTRACTOR'S documents shall not absolve CONTRACTOR of his responsibility.

5.5 Installation of special items of EQUIPMENT shall be taken up only after thorough study of Manufacturer's instructions for handling, assembly and installation, detailed circuit diagram, etc. as may be applicable as per SCHEDULE-A and CONTRACTOR shall ensure availability of such information for EQUIPMENT supplied by the CONTRACTOR.

ARTICLE-6 OWNER/CONSULTANT'S REPRESENTATIVE

- All obligations of OWNER under CONTRACT shall, unless otherwise specifically mentioned, be carried out through FACT Engineering & Design Organization (FEDO) the Design & Engineering CONSULTANT of OWNER. The Resident Construction Manager appointed by FEDO at SITE shall be OWNER/CONSULTANT'S REPRESENTATIVE, and shall represent OWNER/CONSULTANT for all matters concerning this CONTRACT except as otherwise provided herein.
- 6.2 All instructions and orders to CONTRACTOR shall be issued by OWNER/CONSULTANT'S REPRESENTATIVE and/or an ENGINEER-IN-CHARGE nominated by him and communicated in writing CONTRACTOR'S REPRESENTATIVE. if available SITE or at CONTRACTOR at the address given in Article-47. WORK shall be executed under direction and to the satisfaction of the ENGINEER-IN-CHARGE, all in accordance with the provisions. CONTRACTOR shall proceed with WORK in accordance with the decisions, orders and/or instructions issued by OWNER/CONSULTANT'S REPRESENTATIVE or the **ENGINEER-IN** CHARGE provided that;
 - i) If the CONTRACTOR shall without undue delay after being given a decision, order or instruction otherwise than in writing, require it to be confirmed in writing, such decision, order or instruction shall not be effective until written confirmation thereof has been received by CONTRACTOR, and
 - ii) If the CONTRACTOR disagrees with or questions a written decision, order



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or instruction given by ENGINEER-IN-CHARGE he may give notice in writing to ENGINEER-IN-CHARGE within seven (7) days of receipt of such decision, order or instruction stating reasons there for; but issue of such notice shall not relieve CONTRACTOR of the obligation to proceed with WORK in accordance with the decision, order or instruction in respect of which the notice has been issued, without prejudice to other remedial measures provided herein.

6.3 OWNER/CONSULTANT may change the OWNER/CONSULTANT'S REPRESENTATIVE and/or ENGINEER-IN-CHARGE at any time, and shall inform CONTRACTOR promptly, in writing, of such changes.

ARTICLE-7 CONTRACTOR'S REPRESENTATIVE

- 7.1 CONTRACTOR shall be represented at SITE by a technically qualified, competent and experienced Engineer whose name along with qualification and experience shall be intimated to OWNER/CONSULTANT in writing at least two (2) weeks prior to commencement of CONTRACTOR'S activities at SITE for approval by OWNER/CONSULTANT. The said representative shall be present at SITE during working hours and any orders, instructions or other communications delivered to him by OWNER/CONSULTANT, OWNER / CONSULTANT'S REPRESENTATIVE and/or ENGINEER-IN-CHARGE shall be deemed to have been received by CONTRACTOR.
- 7.2 Any communication received by OWNER/CONSULTANT from CONTRACTOR'S REPRESENTATIVE shall be deemed issued by CONTRACTOR and shall be binding on CONTRACTOR.
- 7.3 CONTRACTOR shall not change the Representative at SITE without prior written approval of OWNER/CONSULTANT.

ARTICLE-8 CONTRACTOR TO INFORM HIMSELF

- 8.1 Certain information pertaining to SITE and considered relevant for the execution of WORK are given in SCHEDULE-D, SITE CONDITIONS. Some of the information given therein are likely to be typical and are intended only to give a general idea about SITE. CONTRACTOR is deemed to have visited the SITE and the locality and to have gathered clear idea of the locality, weather conditions, and access to SITE, space availability, sub-soil conditions, availability of materials, availability and terms of service by labour and such other information that may have influence on execution of WORK.
- 8.2 CONTRACTOR is deemed to have carefully examined specifications, schedules and drawings and also to have satisfied himself on the nature and extend of WORK to be executed before submission of a tender and entering into CONTRACT.

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ARTICLE-9 SUPPLIES BY OWNER/CONSULTANT

9.1 EQUIPMENT

- 9.1.1 EQUIPMENT and any materials to be provided by OWNER / CONSULTANT will be issued by OWNER/CONSULTANT and handed over to CONTRACTOR at the place of storage. Place of storage will be OWNER/CONSULTANT'S store at SITE or the open storage yard at SITE or at ground level near the plant premises where EQUIPMENT is to be erected depending upon OWNER/CONSULTANT'S convenience and all moving and handling from the place of storage to the actual place of WORK or the basement on which EQUIPMENT is to be erected, is to be carried out by CONTRACTOR.
- 9.12 It is likely that EQUIPMENT stored out-door are in the packing case and CONTRACTOR shall have to open the packing cases and inspect the items before taking over.
- 9.13 EQUIPMENT items which are shipped in parts will have to be assembled by CONTRACTOR prior to installation. Any special tools provided by Manufacturer for this purpose will be made available to CONTRACTOR against appropriate receipt; but all other tools and tackles will have to be provided by CONTRACTOR. Special tools, if any provided by OWNER/CONSULTANT shall be returned to OWNER/CONSULTANT immediately after use.
- 9.1.4 EQUIPMENT shall be handled by CONTRACTOR very carefully in a professional and workman like manner. In the event of any damage to EQUIPMENT or part thereof due to negligence or use of wrong tool or wrong practices in dismantling, handling, assembling and / or installation or careless storage after taking over by CONTRACTOR, CONTRACTOR shall not only be liable to pay the cost of repair/ replacement but also liquidated damages vide Article-31 hereof for delay in completion of the related WORK beyond the guaranteed date to the extent such delay as occurred on account of repair/ replacement.

9.2 MATERIALS

- 921 Materials issued by OWNER/CONSULTANT for use in fabrication / installation by CONTRACTOR are listed in SCHEDULE-E.
- Materials will be issued to CONTRACTOR from OWNER / CONSULTANT'S Store at SITE against appropriate indent in the form provided by OWNER/CONSULTANT, countersigned by the ENGINEER-IN-CHARGE and transport from store to place of WORK will have to be done by CONTRACTOR. CONTRACTOR shall hold such material in safe custody and shall maintain proper accounts of its use. Such accounts shall be available for inspection by OWNER/CONSULTANT, if required. No material shall be removed from SITE without written approval of OWNER/CONSULTANT.

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923 Materials will be issued only during normal working hours of the SITE Store.

- The maximum cutting allowance and wastages permissible for each item of material is shown in SCHEDULE-Q. CONTRACTOR is not entitled to receive from OWNER/CONSULTANT quantities in excess of those legitimately required including the cutting allowance and wastages and OWNER/CONSULTANT may refuse issue of excess quantities required consequent to wastage in any manner by CONTRACTOR. In such cases CONTRACTOR may have to make his own arrangements for the additional quantities, required at his own cost and carry out WORK within the agreed time. However, OWNER/CONSULTANT may issue such additional quantities, if available, and recover from the bills of CONTRACTOR at rate specified for this purpose in SCHEDULE–E in the absence of such rates at OWNER/CONSULTANT'S book value or market rate whichever is higher, plus 15% thereof.
- In case of urgency, OWNER/CONSULTANT may at the request of CONTRACTOR and at the sole discretion of OWNER/CONSULTANT issue to CONTRACTOR any material required for the WORK but not included in SCHEDULE-E and cost of such issues shall be paid by CONTRACTOR to OWNER/CONSULTANT'S account in advance at price specified by OWNER/CONSULTANT.
- Any excess materials drawn by CONTRACTOR, but not used in WORK shall be returned to OWNER/CONSULTANT'S Store at SITE and receipt obtained; and credit will be given for the quantity so returned.
- 927 CONTRACTOR shall return to OWNER the cut pieces and scraps of material issued by OWNER/CONSULTANT as well as any containers in which they are issued. Such items shall be properly accounted and delivered at the dump-yard at SITE indicated by OWNER/CONSULTANT and no credit will be given to CONTRACTOR on this account.
- In case it is observed that CONTRACTOR has used materials in quantity less than what is legitimately required and the ENGINEER-IN-CHARGE is not satisfied with the reason given by CONTRACTOR, CONTRACTOR shall have to dismantle the work so executed and re-do the same at no cost to OWNER/CONSULTANT. In any case the contract price will be adjusted for such short-usage.
- OWNER/CONSULTANT gives no assurance that material to be issued by OWNER/CONSULTANT will be readily available as and when indented by CONTRACTOR, CONTRACTOR is advised to give a monthly programme of his requirement for each calendar month at least 30 days prior to the first of the calendar month. This programme should indicate the expected requirement in sizes, and quantities and the dates on which required. If CONTRACTOR fails to take such advance action, he shall not be entitled for any extension of time-schedule consequent to delay by OWNER/CONSULTANT in issue of materials, even if such delay has affected WORK.

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ARTICLE-10 MATERIALS / EQUIPMENT BY CONTRACTOR

- 10.1 CONTRACTOR shall procure in time at his own cost and use in WORK all MATERIALS / EQUIPMENT required in carrying out WORK other than EQUIPMENT and materials issued by OWNER/CONSULTANT vide Article-9 hereof. Materials so procured and brought to SITE shall be stored by CONTRACTOR at place allotted for the purpose by ENGINEER-IN-CHARGE and security arrangements shall be made by CONTRACTOR. CONTRACTOR shall provide such materials in sufficient quantities and in time so that WORK can be proceeded with uninterruptedly and shall take advance action in procurement of items which are in scarce supply or availability of which are seasonal.
- MATERIALS / EQUIPMENT provided by CONTRACTOR shall be brand new and of specification agreed to herein or as approved by ENGINEER-IN-CHARGE. MATERIALS / EQUIPMENT brought to SITE shall be used in WORK only after approval by ENGINEER-IN-CHARGE and if so required by him, CONTRACTOR shall provide test certificates and / or samples for verifying the quality. Mill certificates covering physical and analytical tests are to be produced as called for by ENGINEER-IN-CHARGE at no extra cost. If any further tests are to be carried out CONTRACTOR shall arrange for the same at no additional cost to OWNER/CONSULTANT. CONTRACTOR shall declare the manufacturer's name of such MATERIALS / EQUIPMENT and provide, if asked for, evidence relating to the source and purchase there from. Decision by ENGINEER-IN-CHARGE shall be final and binding on CONTRACTOR in respect of whether the material provided is conforming to agreed specification or not.
- 10.3 Rejected MATERIALS / EQUIPMENT shall be removed by CONTRACTOR from SITE immediately.
- 10.4 Approval by ENGINEER-IN-CHARGE or any other representative of OWNER/CONSULTANT shall not relieve CONTRACTOR of his responsibility to use material of specified quality suitable for WORK and re-work necessitated consequent to use of sub-standard MATERIALS / EQUIPMENT shall be promptly carried out by CONTRACTOR, free of cost to OWNER/CONSULTANT, irrespective of whether the item was approved by OWNER/CONSULTANT or not.

ARTICLE-11 QUALITY OF WORK

- 11.1 CONTRACTOR shall execute WORK in the most substantial, professional and workman-like manner in full conformity to the drawing and specifications and instructions provided by OWNER/CONSULTANT.
- 11.2 CONTRACTOR shall be responsible for the dimensional accuracy of WORK carried out within the measurement tolerance specified. In case where no measurement tolerance is specified, decision of ENGINEER-IN-CHANGE shall be final in respect of whether an item of WORK carried out conforms to required standard of dimensional accuracy or not.

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11.3 Any designs carried out by CONTRACTOR shall be done in a professional and engineer-like manner in conformity with applicable standards and codes of practice.

11.4 CONTRACTOR shall be responsible to ensure that WORK executed conforms to applicable statutory regulations in force on the date on which Letter of Intent is issued by OWNER/CONSULTANT. In the event of any change in such statutory regulations or any new regulations becoming effective after the date of Letter of Intent that have influence on WORK, CONTRACTOR shall promptly notify OWNER/CONSULTANT of the consequent changes required in WORK and its impact, if any, on cost and time-schedule agreed to herein and the provisions of Article-15 hereof will thereafter apply

ARTICLE-12 INSPECTION BY OWNER/CONSULTANT

- 12.1 ENGINEER-IN-CHARGE or any other designated representative of OWNER/CONSULTANT shall at all reasonable times be entitled to inspect WORK or any part thereof. CONTRACTOR shall provide all necessary assistance to OWNER/CONSULTANT and shall make available all necessary scaffolding, tools and testing equipment to enable OWNER/CONSULTANT to carry out such inspection / tests. CONTRACTOR shall uncover any part of WORK or make openings for inspection as ENGINEER-IN-CHARGE may direct and make good such part to the reasonable satisfaction of OWNER/CONSULTANT.
- 12.2 On receiving notice from CONTRACTOR that WORK or part thereof is ready for inspection, ENGINEER-IN-CHARGE shall without unreasonable delay attend for the purpose of inspecting the related item of WORK. When tests are completed satisfactorily, CONTRACTOR shall give the test certificates within Five (5) days of completion of tests for signature by ENGINEER-IN-CHARGE. ENGINER-IN-CHARGE may waive at his discretion, right to attend any tests; but this shall not relieve CONTRACTOR of his responsibility to carry out necessary tests at each stage of WORK and provide the test certificates.
- 12.3 Whenever it is necessary to cover up any item or WORK in respect of which previous inspection is desired and CONTRACTOR has been notified accordingly in writing, CONTRACTOR shall give five (5) days' notice in writing to ENGINEER-IN-CHARGE before the said item is covered up. No such WORK shall be covered up or built upon unless it has been inspected and approved by ENGINEER-IN-CHARGE or his consent in writing to this being done without prior inspection has been obtained.
- 12.4 CONTRACTOR will, if so required by OWNER/CONSULTANT, provide specified numbers of test certificates, material analysis certificates and / or radiographic / NDT examination reports at no extra cost.
- 12.5 All tests shall be carried out as per procedure agreed to herein. If no such procedure is agreed to herein the procedure laid out in applicable standards / codes and as approved by ENGINEER-IN-CHARGE shall be followed. If in the opinion of ENGINEER-IN-CHARGE any tests carried out are not properly



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conducted, CONTRACTOR shall have to repeat the same at no additional cost to OWNER/CONSULTANT.

- 12.6 If in the opinion of ENGINEER-IN-CHARGE results of any tests carried out is not reasonably satisfactory, he may reject the portion of WORK for which the test is not satisfactory and CONTRACTOR shall dismantle the rejected portion and redo the same at no additional cost and such repair/ rework shall be subjected to further inspection/test in the above-said manner.
- 12.7 That an item of WORK has been approved at the time of setting out or in stage-wise inspection/test does not relieve CONTRACTOR of his responsibilities under Article-21 and Article-30 thereof.
- 12.8 OWNER/CONSULTANT reserves the right to engage or for participation of representatives of OWNER/CONSULTANT'S Licensor or collaborator or any third party inspection agency that OWNER/CONSULTANT may appoint for the purpose, in inspection and testing of WORK and such representative may exercise with CONTRACTOR such authorities as OWNER/CONSULTANT may delegate to them.

ARTICLE-13 PRICE

- 13.1 In consideration of WORK, OWNER shall pay CONTRACTOR the sum specified in SCHEDULE-F, PRICES. The sum specified in SCHEDULE-F include all costs to CONTRACTOR in carrying out WORK except cost of any material to be issued free of cost by OWNER/CONSULTANT vide Article-9 hereof.
- 13.2 The price specified in SCHEDULE-F is inclusive of all costs such as labour, materials to be supplied by CONTRACTOR, materials to be provided by OWNER/CONSULTANT at CONTRACTOR'S cost, supervision, incidental charges such as loading and unloading, hoisting, setting out, temporary facilities, protective works, safety measures, tools and implements, construction equipment, hire charges of construction equipment provided by OWNER/CONSULTANT, royalties, licenses, testing and calibration, removal of debris and clearing SITE on completion of WORK and maintenance of WORK required hereunder and any other cost incidental to carrying out WORK.
- 13.3 Without prejudice to provisions under Article-15, all prices shall remain firm till completion of WORK and shall not be subject to escalation of any description including those on account of delays due to Force Majeure, unless otherwise stated in SCHEDULE-F.
- 13.4 All statutory deductions will be made at source in accordance with the rules and regulations prevailing from time to time.
- 13.5 Amounts specified in SCHEDULE-F are subject to deduction of Income Tax and OWNER/CONSULTANT shall withhold from the same such amount as is due at rates prevailing at the time of payment and remit the same to income tax authorities to the account of CONTRACTOR and provide CONTRACTOR



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with appropriate certificate of tax deduction. Any statutory variation in the rate of deduction of income tax shall not lead to any adjustment in Price.

ARTICLE-14 TERMS OF PAYMENT

- 14.1 OWNER/CONSULTANT shall make payments to CONTRACTOR in installments as specified in SCHEDULE-G PAYMENT SCHEDULE
- 14.2 CONTRACTOR shall make all claims in the standard printed bill form prescribed by the OWNER/CONSULTANT and claims shall be serially numbered. Claims shall be made in triplicate copies and shall be submitted to the ENGINEER-IN-CHARGE.
- 14.3 In case mobilisation advance is agreed to in SCHEDULE-G, CONTRACTOR shall submit along with the invoice a Bank Guarantee from a Nationalised Bank in India, in the proforma vide SCHEDULE-M and payment will be made within 15 days of receipt of the said documents.
- 14.4 Claims for part payments shall not be more frequent than once a month. Any deduction to be made for materials issued by OWNER/CONSULTANT or for hire changes of construction equipment provided by OWNER/CONSULTANT will be deducted from the respective part bill and CONTRACTOR shall show such deductions also in the bill.
- 14.5 All part payments shall be treated as payments on account and not as value of WORK done and on satisfactory completion of WORK and issue of taking over certificate CONTRACTOR will be paid the total amount due after deduction of any liquidated damages due under CONTRACT, less payments already made and any other recoveries due from the CONTRACTOR.

ARTICLE-15 CHANGE IN WORK

- 15.1 Any modification in specification and / or quantity of WORK due to any of the following reasons will constitute a CHANGE IN WORK.
 - i) Increase or decrease in quantity of WORK as per final designs provided by OWNER/CONSULTANT as compared to those specified in SCHEDULE-F hereof, hereinafter referred to as "Variation in Quantity"
 - ii) Variation in specifications for any item of WORK as per final design given by OWNER/CONSULTANT as compared to SCHEDULE-F hereof or consequent to changes made after date of Letter of Intent in applicable statutory regulations hereinafter referred to as "Variation in Specification"
 - iii) Any new items of WORK not specified or included in SCHEDULE-A and for which any price or rate of cost is not specified in SCHEDULE-F hereinafter referred to as" Extra Item".
 - iv) Any re-work necessitated by change in design by OWNER /



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CONSULTANT of an item of WORK already executed by CONTRACTOR as per CONTRACT, hereinafter referred to as "Requested Re-work".

Any modification or rework executed by CONTRACTOR by way of rectification of mistakes or making good defective WORK shall not be treated as CHANGE IN WORK.

- 15.2 In the case of "Variation in Quantity" of an item of WORK the Contract value for the item shall be adjusted pro-rata. In case aggregate increase or decrease in value of Contract due to Variation in Quantity and / or any other reason exceeds 25% of the Initial Contract Price as per Schedule-F the adjustment in price for such variations beyond the Initial 25% margin shall be discussed and agreed between the parties. However, CONTRACTOR'S prices shall be firm for variation up to (+) 25% of Initial Contract value.
- 15.3 In the event CONTRACTOR is called upon to carry out WORK with variation in specification but generally falling within the categories of WORK covered by CONTRACT, CONTRACTOR shall carry out the related CHANGE IN WORK without any extension of time-schedule. However, the price payable for the items affected by said variation in specification shall be determined based on rates agreed to in CONTRACT for other similar items; and in the absence of agreed rates for similar items it shall be determined in such manner as is specified for the purpose in SCHEDULE-F.
- 15.4 If CONTRACTOR is called upon to carry out any extra item, consideration receivable by CONTRACTOR for extra items shall be determined in the same manner as specified in Article 15.3 above.
- 15.5 In the event CONTRACTOR is called upon to carry out any Requested Rework, he shall be compensated for any dismantling, demolishing or reconstruction as is applicable and determined in the same manner as provided in Article 15.3 above.
- 15.6 Notwithstanding the above, if specific provisions are made for the adjustment of price or method of determining the same in SCHEDULE-F or the Special Conditions of Contract vide SCHEDULE-Q provisions therein shall prevail over such provisions in the Article-5 which are in conflict with them.
- 15.7 In the event CHANGE IN WORK is of a substantial nature and is likely to affect CONTRACTOR'S obligations in respect of Time Schedule, CONTRACTOR shall request ENGINEER-IN-CHARGE in writing of any extension of time schedule require giving reasons therefore as such extension shall be effective only when approved by OWNER/CONSULTANT.

ARTICLE-16 VARIATIONS & OMISSIONS

16.1 CONTRACTOR shall not alter any of WORK except as directed in writing by ENGINEER-IN-CHARGE. OWNER/CONSULTANT shall have full powers during execution of CONTRACT to alter, amend, omit, add or otherwise vary WORK, from time to time by issue of written notice therefore to CONTRACTOR and CONTRACTOR shall carry out such variations and be



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bound by CONTRACT so far as applicable as though the said variation is stated in CONTRACT. In case, in the opinion of CONTRACTOR, the said variation will involve an increase or decrease in the Contract Price or any of the other obligations of CONTRACTOR hereunder, subject to provisions under Article-15, CONTRACTOR shall within seven (7) days of receipt of the said notice advise ENGINEER-IN-CHARGE of that effect and only on receipt of written acceptance of same from ENGINEER-IN-CHARGE, CONTRACTOR shall give effect to the requested variation.

16.2 The difference in Contract Price; if any, occasioned by such variations shall be added to or decreased from the Contract price and paid in the same manner as Contract Price.

ARTICLE-17 ACCESS TO SITE

- 17.1 OWNER/CONSULTANT shall provide CONTRACTOR access to SITE and place within SITE where WORK is to be performed at all reasonable times, subject to Article-24 and 26 hereof. Unless specified elsewhere to the Contrary, OWNER/CONSULTANT shall also provide suitable road for transport of EQUIPMENT and Materials from the nearest public thoroughfare or OWNER/CONSULTANT'S Store to the place of work. Any approach road, bridges over trenches, ladders or such other means of access required in the area of work shall be made by CONTRACTOR at no cost to OWNER / CONSULTANT.
- 17.2 The access to SITE or place of work shall not be exclusive to CONTRACTOR but only such as to enable him to execute WORK. OWNER/CONSULTANT reserves the right to grant access to SITE and place of WORK to other contractors engaged by OWNER/CONSULTANT for carrying out work relating to PROJECT and CONTRACTOR shall fully co-operate with such other contractors and carry out WORK without causing any hardship to others. OWNER/CONSULTANT'S representatives and / or representative of any third-party engaged by OWNER/CONSULTANT for inspection and/ or any statutory authorities shall at all reasonable times have access to SITE and place of work.
- 17.3 Access to SITE granted herein shall not be construed as grant of any right of possession or Title to CONTRACTOR over SITE or part thereof.

AR TICLE-18 CONSTRUCTION POWER & WATER

- 18.1 OWNER/CONSULTANT shall provide CONTRACTOR with supply of electric power at nominal supply voltage of 415 V in 3 phase 50 C/s, 4 wire system at one points at the outgoing terminals of OWNER/CONSULTANT'S switchgear in the manner and for the purposes specified in SCHEDULE-H.
- 18.2 CONTRACTOR shall make his own arrangements to lay cables along such routes and in such manner as ENGINEER-IN-CHARGE approves and to distribute the power to various consuming units and lighting system installed by CONTRACTOR, all in accordance with applicable statutory rules and regulations, CONTRACTOR shall apply for, pay any fees related thereto and

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obtain statutory approvals for such installations that CONTRACTOR sets up and engage, where necessary, licensed electricians for attending to operation and up-keep for the said installation.

- 18.3 OWNER/CONSULTANT shall provide CONTRACTOR with supply of water for use in WORK carried out at SITE at one point in a manner and for the purposes as specified in SCHEDULE-H. CONTRACTOR shall make his own arrangements for laying pipelines from the above point to place of WORK and for distribution therein along a route and in manner approved by ENGINEER-IN-CHARGE. CONTRACTOR shall ensure that the installations made by CONTRACTOR are leak proof and that proper valves are provided at all distribution points in order to avoid any wastage of water. For use in higher elevations necessary surface tank and pumping arrangements shall be provided by CONTRACTOR at his cost.
- 18.4 Supply of power and water by OWNER/CONSULTANT in the above-said manner is free of cost to CONTRACTOR. OWNER/CONSULTANT shall endeavour to maintain supply of power and water uninterruptedly so that WORK can be proceeded with without interruption. However, in the event of any interruption in these supplies for short intervals of time due to any repair or maintenance of OWNER/CONSULTANT'S supply system or due to extraneous reasons, CONTRACTOR shall fully co-operate by re-scheduling the day's WORK and shall not be entitled for any extension of Time -Schedule or compensation for idle wages.

ARTICLE-19 CONSTRUCTION EQUIPMENT

- 19.1 CONTRACTOR shall provide all tools, tackles, hoisting equipment, safety appliances, ladders, scaffolding, test equipment and such other facilities as are required for carrying out WORK and OWNER/CONSULTANT does not undertake to provide any such facility except as provided hereunder CONTRACTOR'S equipment shall be used solely for the purpose of WORK and shall not be removed from SITE by CONTRACTOR without written permission of OWNER/CONSULTANT. CONTRACTOR shall be responsible to maintain and safeguard CONTRACTOR'S equipment against damage or loss.
- 19.2 Construction equipment available with OWNER/CONSULTANT and the hire charges for each are described in SCHEDULE-J. These equipment will be operated by OWNER/CONSULTANT'S crew and the hire changes include all running expenses. The hire changes will be reckoned for the period commencing with the time at which it is released for use by CONTRACTOR up to time when it is released by CONTRACTOR or time up to which CONTRACTOR has intended for his use whichever is later.
- 19.3 Construction equipment available with OWNER/CONSULTANT are limited and are intended for the common use of the PROJECT and OWNER/CONSULTANT does not undertake to place these at the disposal of CONTRACTOR without specific prior commitment. CONTRACTOR shall discuss with ENGINEER-IN-CHARGE the requirements and programme of use well in advance and the equipment will be made available only during such times as the ENGINEER-IN-CHARGE agrees to. That



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OWNER/CONSULTANT'S construction equipment was not available in the time or for adequate duration shall not entitle CONTRACTOR for any increase in price or extension of Time Schedule unless agreed to otherwise in SCHEDULE-F and in such cases CONTRACTOR shall have to make his own alternative arrangements.

19.4 OWNER/CONSULTANT'S construction equipment placed at the disposal of CONTRACTOR shall be used by CONTRACTOR only for the purposes they are intended for and within its prescribed limits of application and CONTRACTOR shall be liable to bear cost of repair / replacement in case of any damage due to misuse or wrong application.

ARTICLE-20 ACCOMMODATION AT SITE & COMMUNICATION FACILITIES

- 20.1 OWNER/CONSULTANT does not undertake to provide any covered area or protected accommodation of any kind for use by CONTRACTOR for office, store, shop or residential accommodation.
- 20.2 OWNER/CONSULTANT shall allot leveled ground at convenient place in SITE within reasonable distance of the place of WORK where CONTRACTOR may build temporary structures for site office; store and fabrication shop and CONTRACTOR shall make arrangements for fencing and security. CONTRACTOR shall also make suitable arrangements for sanitation and hygiene in the place allotted to CONTRACTOR.
- 20.3 CONTRACTOR shall make his own arrangements for residential accommodation of staff and workmen, facilities for food and canteen and shall not set up any hutments, barracks or other form of residential units at any place within SITE or on other land belonging to OWNER/CONSULTANT unless specifically agreed to.
- 20.4 CONTRACTOR shall make his own arrangements for any telephone / telex / fax / email communication facilities he needs in carrying out WORK. In case of emergency, OWNER/CONSULTANT may permit use of available facility for which charges if any shall be borne by CONTRACTOR.

ARTICLE-21 TESTS ON COMPLETION & TAKING OVER

- 21.1 CONTRACTOR shall give ENGINEER-IN-CHARGE fifteen (15) days' notice in writing of the date on which he will be ready to carry out tests specified in SCHEDULE-A for the WORK or section of WORK if WORK is so divided in SCHEDULE-A. Unless otherwise agreed, these tests shall take place within ten (10) days after the date so notified by CONTRACTOR on such day / days as ENGINEER-IN-CHARGE notifies CONTRACTOR in writing. Tests shall be held as per procedure laid out in SCHEDULE-K hereof and within three (3) days of completion of tests CONTRACTOR shall submit to ENGINEER-IN-CHARGE three (3) copies of the report of the tests for his approval.
- 21.2 If in the opinion of ENGINEER-IN-CHARGE the tests on completion are being unduly delayed he may by notice in writing call upon the CONTRACTOR to make such tests within ten (10) days of receipt of such notice; and unless



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otherwise agreed, CONTRACTOR shall make the said tests on such day within the said 10 days as the ENGINEER-IN-CHARGE may fix and of which he shall give notice to ENGINEER-IN-CHARGE. If CONTRACTOR shall fail to make the tests within the time aforesaid, OWNER/CONSULTANT shall be entitled to proceed with the tests and all tests as made shall be at the risk and expense of CONTRACTOR.

- 21.3 ENGINEER-IN-CHARGE may require CONTRACTOR at any time before commencement of a test or during the performance of the test to postpone or suspend the test if in his opinion the arrangements made by CONTRACTOR for carrying out the tests are inadequate or unsatisfactory; and in such case CONTRACTOR shall re-schedule the tests and conduct it in such manner as ENGINEER-IN-CHARGE approves.
- 21.4 Should any part of WORK fail to achieve the performance specified or to pass the tests prescribed in any other manner, CONTRACTOR shall at his own expense effect such changes consistent with good engineering practice, as are necessary to enable the WORK to pass further tests and conduct a fresh test after duly notifying ENGINEER-IN-CHARGE. If during the further tests, the WORK or any part thereof fails to achieve the performance specified, the WORK shall not be considered acceptable and CONTRACTOR shall replace, re-do or otherwise rectify them entirely at his own cost until they become acceptable, all within the time schedule agreed to vide Article–4, provided that in case the failure to pass tests is within permissible limits as Engineer-incharge considers acceptable, OWNER/CONSULTANT may at its own discretion accept the WORK upon appropriate deduction in Contract price as may be provided for elsewhere in CONTRACT or as mutually agreed to.
- 21.5 As soon as WORK has been completed in all respects in accordance with CONTRACT and has passed the prescribed tests, OWNER/CONSULTANT shall issue a certificate taking over the WORK (hereinafter referred to as Taking Over Certificate), stating the date on which WORK has been so completed and passed the tests, and the WORK shall be deemed taken over by OWNER/CONSULTANT on the said date. In the event of WORK being divided by this CONTRACT into two or more sections or not being completed in all respects but only to such an extent that it can be put to use by OWNER/CONSULTANT without hindering or being hindered by the execution of part remaining to be completed, OWNER/CONSULTANT shall be entitled to take over any section or sections before the other or the others by issuing a Taking Over Certificate in respect thereof.
- 21.6 If by reason of any default on the part of CONTRACTOR a Taking Over Certificate has not been issued in respect of every portion of WORK or every portion of a section of W ORK within Thirty (30) days of the date on which it should have been issued as per Time Schedule agreed in CONTRACT, OWNER/CONSULTANT shall be at liberty, without prejudice to other rights herein of OWNER/CONSULTANT to use the WORK of any portion thereof in respect of which a Taking Over Certificate has not been issued, provided that CONTRACTOR is afforded reasonable opportunity to take such steps as may be necessary to permit issue of Taking Over Certificate.



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21.7 Issue of Taking Over Certificate or acceptance of WORK or part thereof in any other manner after passing prescribed tests or otherwise shall not relieve CONTRACTOR of his warranty obligations vide Article-30 hereof.

ARTICLE-22 TEMPORARY STRUCTURES

- 22.1 Any temporary structure set up at SITE by CONTRACTOR shall be of sound construction taking into account safety of EQUIPMENT and workmen and CONTRACTOR shall be solely responsible for any damage or consequence thereof of the same. If in the opinion of ENGINEER-IN-CHARGE such constructions are not of appropriate design or construction and are likely to imperil safety of EQUIPMENT and/or workmen he may notify CONTRACTOR accordingly and Contractor shall forthwith forbid its use until it is replaced or suitably modified in an acceptable manner.
- 22.2 Any temporary construction made by CONTRACTOR in connection with WORK shall be dismantled and removed by CONTRACTOR and the entire area where WORK was performed cleared of any surplus or scrap materials, rubbish or debris within Thirty (30) days of issue of Taking over Certificate or such earlier date as ENGINEER-IN-CHARGE may require.
- 22.3 If any temporary structure set up by CONTRACTOR at SITE including any power and water lines obstruct implementation of PROJECT in any manner at any stage of WORK, CONTRACTOR shall immediately on receipt of notice thereof from ENGINEER-IN-CHARGE dismantle and remove or shift the temporary structure or line, at his own cost, in such a manner that the obstruction is removed.

ARTICLE-23 INSURANCE AND LIABILITY FOR DAMAGE

- 23.1 CONTRACTOR shall during execution of WORK, properly cover up and protect any part of work liable to damage by exposure to weather and shall take every reasonable precaution against accident or damage to work from any cause.
- 23.2 All equipments and materials brought to SITE by CONTRACTOR for use in execution of WORK shall be at sole risk of CONTRACTOR. Only such materials as are actually used in WORK so as to form part thereof will be covered by the insurance cover arranged by OWNER/CONSULTANT.
- 23.3 OWNER/CONSULTANT shall have covered by storage-cum-erection insurance policies EQUIPMENT, materials supplied by OWNER / CONSULTANT, OWNER/CONSULTANT'S construction equipment, WORK executed at SITE and OWNER/CONSULTANT'S personnel. These policies apply only to insurance risks at SITE and no other location.
- 23.4 CONTRACTOR shall take care not to cause any damage to any equipment, materials and or construction of and or any work executed by any other Contractors or other third parties doing work at SITE and CONTRACTOR Indemnifies OWNER/CONSULTANT against any liabilities, whatsoever, consequent to damage caused by CONTRACTOR or CONTRACTOR'S



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workmen in the aforesaid manner.

23.5 CONTRACTOR indemnifies OWNER/CONSULTANT against any loss, damage or other liabilities in consequence of any negligent act or omission by CONTRACTOR or CONTRACTOR'S Workmen or theft or pilferage of any material and / or EQUIPMENT handed over to CONTRACTOR by OWNER/CONSULTANT. CONTRACTOR shall take appropriate insurance as may be required to cover the above responsibilities.

ARTICLE-24 WORKING HOURS

- 24.1 All days observed as Holidays by OWNER/CONSULTANT shall be Holidays and all other days shall be working days at SITE, CONTRACTOR shall be given, on request, the calendar of such Holidays for each year. CONTRACTOR shall carry out WORK normally on working days.
- 24.2 Working hours shall be 8 hours per day on all working days and timing will be as ENGINEER-IN-CHARGE may notify from time to time. Contractor's workmen will be permitted to enter SITE only thirty (30) minutes prior to commencement of working hours and shall leave SITE within thirty (30) minutes of close of working hours. However in special circumstances such as when ENGINEER-IN-CHARGE is satisfied that nature of WORK for the time being carried out is such that it shall have to be proceeded with uninterruptedly even beyond normal working hours or when CONTRACTOR is behind schedule and would to complete WORK within normal working able OWNER/CONSULTANT shall permit CONTRACTOR to and CONTRACTOR shall perform WORK beyond normal working hours and any overtime wages or other costs receivable by CONTRACTOR'S workmen shall be fully borne by CONTRACTOR. CONTRACTOR shall seek for permission for engaging in WORK beyond normal hours well in advance.

ARTICLE-25 SAFETY

- 25.1 CONTRACTOR shall execute WORK in a safe and secure manner always ensuring safety of personnel engaged in WORK, EQUIPMENT, Materials, Construction Equipment and the WORK itself in all its phases. Safety codes for Construction specified in SCHEDULE-P shall be strictly adhered to and any violation of these will be deemed willful negligence on the part of CONTRACTOR.
- 25.2 In the event of any accident occurring at SITE in connection with WORK, CONTRACTOR shall submit a report of same to ENGINEER-IN-CHARGE immediately, and/in any case within 24 hours of its occurrence, and shall fully co-operate with OWNER/CONSULTANT in any enquiry held in connection with the same.

ARTICLE-26 CONSULTANT'S REGULATIONS & RULES

26.1 CONTRACTOR shall observe and ensure that his supervisors and workmen observe all rules and regulations of OWNER/CONSULTANT applicable to SITE as may be communicated by OWNER/CONSULTANT from time to time.



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CONTRACTOR shall ensure that his supervisors and workmen engaged at SITE function in a disciplined manner.

- 26.2 Entry to SITE of CONTRACTOR'S men shall at all times be subject to security regulations of OWNER/CONSULTANT and controlled by issue of passes. Passes will be issued against application by CONTRACTOR in appropriate form within seven days of receipt of such application. OWNER/CONSULTANT may reject issue of pass or cancel a pass issued earlier to any person whose presence at SITE, in the opinion of OWNER/CONSULTANT is detrimental to the interest of OWNER/CONSULTANT.
- 26.3 In the event of any person or persons including CONTRACTOR'S REPRESENTATIVE engaged by CONTRACTOR for WORK violates any of the regulations of OWNER/CONSULTANT or does not function in a disciplined manner or is not, in the assessment of OWNER/CONSULTANT, competent to carry out the work for which he is engaged OWNER / CONSULTANT, may cancel the entry passes issued to such person / persons without any notice and CONTRACTOR shall make arrangements for substitutes immediately.

ARTICLE-27 STATUTORY REGULATIONS

- 27.1 CONTRACTOR shall in all matters arising out of performance of CONTRACT confirm at his own expense with all Acts, Orders, Regulations, Rules and By-Laws of Government of India, State Governments, local bodies and other authorities there under for the time being in force and applicable to WORK.
- 27.2 Where any temporary installations, facilities or apparatus set up by CONTRACTOR for carrying out WORK is subject to statutory regulations. CONTRACTOR shall ensure that these conform to such regulations applicable and also apply for pay necessary fees and obtain any approval required there under, prior to putting the same into use.
- 27.3 Where WORK or any part thereof, other than those covered by Article-27.2 above, is subject to statutory regulations / approval, OWNER shall apply for such approvals and pay the fees; but CONTRACTOR shall provide at his own expense all information and assistance necessary to make such applications and to satisfy the Inspecting Authority representing the related statutory body that WORK carried out conforms to applicable regulation. Any WORK or part thereof rejected for non-compliance with statutory regulations shall be modified or replaced by CONTRACTOR at no cost to OWNER/CONSULTANT within the agreed Time-Schedule so as to make it conform to applicable regulations. CONTRACTOR shall not be responsible for any such liability if it has occurred due to the sole reason that EQUIPMENT, designs or materials supplied by OWNER / CONSULTANT do not conform to such applicable regulations.

ARTICLE-28 LAWS RELATING TO LABOUR

28.1 CONTRACTOR shall comply with all Acts, Rules, Orders, Regulations, By-



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laws of Government of India; State Government. Local Bodies or an Office, authority or unit, there under pertaining to employment or labour at SITE and procure any license that is required for such employment.

- 28.2 CONTRACTOR shall be deemed Employer for these purposes and shall discharge all obligations of Employer. CONTRACTOR shall maintain such registers and records and display such information and notices as are required under these provisions and such registers shall at all-time be available for inspection by OWNER/CONSULTANT. Where the law require that any act of CONTRACTOR shall be carried out only in the presence of a representative of OWNER/CONSULTANT and witnessed by OWNER / CONSULTANT it shall be so carried and CONTRACTOR shall request ENGINEER-IN-CHARGE for the presence of OWNER/CONSULTANT'S representative. Any information or reports required from CONTRACTOR by OWNER/CONSULTANT, periodically or otherwise, for discharge of OWNER/CONSULTANTS obligations under such laws shall be provided promptly.
- 28.3. Payment of workmen Compensation and implementation of labour laws with regard to workmen employed by CONTRACTOR are CONTRACTOR'S liability and in case OWNER/CONSULTANT is compelled to incur any expense or any other amount on behalf of CONTRACTOR'S workmen, OWNER/CONSULTANT is entitled to recover that amount from any bills payable to CONTRACTOR or in any other manner as is provided in Article 44 hereof or otherwise.
- 28.4 Contractor shall be responsible for all obligations under ESI Act, P. F. Act, Building and Other Construction Worker's Welfare Cess Act, 1996, Rules and Regulations there under and such other Acts and Regulations as may be relevant. Deduction towards ESI, PF, Building and Other Construction Worker's Welfare Cess etc. required as per applicable statutory regulations shall be made by the Contractor and the amounts so deducted along with the Contractor's own contributions as applicable shall be deposited with appropriate authorities. Evidence of this shall be produced by the Contractor when called upon to do so by OWNER/CONSULTANT and in any case every quarter. In case OWNER/CONSULTANT is called upon to pay any such expenses, these shall be reimbursed fully by CONTRACTOR and OWNER/CONSULTANT shall be entitled to recover the same from CONTRACTOR.
- 28.5 CONTRACTOR indemnifies OWNER/CONSULTANT against any claims from any person or persons engaged by CONTRACTOR in connection with WORK and in the event OWNER/CONSULTANT becomes directly liable for any payment consequent to breach or non-observance by CONTRACTOR of the provisions hereof, such amounts shall be payable by CONTRACTOR to OWNER/CONSULTANT, AND OWNER/CONSULTANT may recover such dues from any amount receivable by CONTRACTOR under CONTRACT without prejudice to any other mode of recovery.
- 28.6 In the event of any dispute between CONTRACTOR and persons engaged by CONTRACTOR at SITE, CONTRACTOR shall amicably resolve such disputes in such a way that WORK can be proceeded with



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uninterruptedly. In the event such disputes cannot be resolved in the abovesaid manner, CONTRACTOR shall immediately notify ENGINEER-IN-CHARGE of the existence of such a dispute and the nature thereof; but CONTRACTOR shall himself be responsible to take such measures as are necessary and permissible to have the situation resolved.

28.7 CONTRACTOR may have access to OWNER'S qualified first-aid personnel and ambulance in case of accidents where such facility is available. CONTRACTOR shall however provide a first-aid post for attending to minor injuries.

ARTICLE-29 APPRENTICES ACT

- 29.1 CONTRACTOR shall comply with provisions of the Apprentices Act, 1961 and any amendments thereto as well as any Rules made or orders issued there under from time to time.
- 29.2 CONTRACTOR shall submit to OWNER / CONSULTANT periodically statement giving the number of workmen engaged by CONTRACTOR in each category and the number of apprentices engaged in the corresponding category.

ARTICLE-30 WARRANTY AND MAINTENANCE PERIOD

- 30.1 CONTRACTOR warrants that WORK will be carried out in full conformity with drawings, designs and specifications provided by OWNER/CONSULTANT, in compliance with applicable statutory regulations for the time being in force, in accordance with recognized standards and codes of practice, as per good engineering practice and in a professional and workman-like manner.
- 30.2 In the event of any defect being noticed in the quality or workmanship of WORK or any part thereof or any material provided and used by CONTRACTOR in WORK, within a period twelve (12) months from the date if issue of completion certificate by OWNER/CONSULTANT it shall be rectified or replaced by CONTRACTOR at his own expense as deemed necessary by the Engineer-in-Charge. If CONTRACTOR fails to do so within reasonable period or if in the opinion of OWNER/CONSULTANT, CONTRACTOR is unable to do so, or the repair / replacement cannot wait till CONTRACTOR is able to do it, OWNER/CONSULTANT may either directly or through such other agencies as OWNER/CONSULTANT may deem fit, get defective part of WORK made good, all at the risk and cost of CONTRACTOR. Notwithstanding the period specified above, in case of civil constructions, the period of warranty will extend at least up to the end of first monsoon after the WORK is taken over vide Article-21.
- 30.3 An item of WORK so repaired or replaced shall carry a further warranty as per Article-30.2 above.
- 30.4 During the period of warranty, CONTRACTOR'S representative shall be available at SITE or at such place from where he can come to SITE



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immediately on request by OWNER/CONSULTANT and he shall be authorized by CONTRACTOR to carry out any repairs or maintenance as CONTRACTOR is obliged to carry out under the above warranty.

- CONTRACTOR shall not be liable for any defect owing to defective design, specifications, drawings or information provided by OWNER/CONSULTANT in writing based on which WORK has been executed or to defective EQUIPMENT or material provided by OWNER/CONSULTANT or to improper use of WORK by OWNER/CONSULTANT. Normal wear and tear shall not be treated as defect in WORK.
- On expiry of the said warranty period or on completion of CONTRACTOR'S obligations under the warranty, whichever is later, OWNER/CONSULTANT shall issue to CONTRACTOR a Discharge Certificate, stating that CONTRACTOR is discharged of these warranties and release any amounts retained or other form of security held by OWNER/CONSULTANT in lieu of security by CONTRACTOR for said warranties.

ARTICLE-31 GUARANTEE FOR TIME SCHEDULE

- 31.1 CONTRACTOR guarantees that WORK will be executed as per time schedule agreed to herein vide Article-4.
- 31.2 In the event of any delay in completion of WORK or part thereof as per agreed schedule, due to reasons other than those specifically exempted vide Articles-15.7, 32.2 and 40.3 hereof, OWNER/CONSULTANT may deduct from the considerations due to CONTRACTOR under CONTRACT or otherwise recover from CONTRACTOR in lieu of liquidated damages, a sum calculated at half of one percent (0.5%) of the Contract Price due to CONTRACTOR for the portion of WORK agreed to be carried out by CONTRACTOR till the date on which the delayed item is due to be completed, for each week of delay, subject to a maximum of seven and a half (7.5%) percent of total Contract Price. Any payments recovered from CONTRACTOR by way of Liquidated damages for delays in earlier stages of WORK shall be reduced from the sums due under this Article-31.2. It is understood and agreed that such amounts due represent the losses suffered by OWNER/CONSULTANT because of delay in WORK by CONTRACTOR and it shall not be necessary for OWNER/CONSULTANT to establish the actual amount of losses suffered. irrespective of whether the WORK or part thereof could be put to any use by OWNER/CONSULTANT had it been completed by CONTRACTOR as per schedule.
- For the purposes of Article-31.2 completion of WORK or part thereof shall mean taking over by OWNER/CONSULTANT of WORK or part thereof (as is applicable) after satisfactory completion of tests vide Article-21 hereof.

ARTICLE-32 DELAY BY CONSULTANT

32.1 In case of any delay in supply by OWNER/CONSULTANT of Designs and Drawings, EQUIPMENT, materials, Construction Equipment, Power and water



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for construction and/or any other item to be supplied by OWNER / CONSULTANT as per CONTRACT, or in the interruption of supply thereof, CONTRACTOR shall be informed in advance of such delay, wherever possible, and CONTRACTOR shall re-schedule WORK in such a manner that no infructuous expenditure is incurred.

- 32.2 In case delay by OWNER/CONSULTANT is of a substantial nature and has affected WORK or part thereof in such a manner that it cannot be proceeded with as per agreed schedule, the time-schedule for the part so affected shall be extended correspondingly. Decision of ENGINEER-IN-CHARGE shall be final in respect of any extension of time.
- 32.3 In any case CONTRACTOR shall not be entitled for any financial compensation or increase in Contract Price in consequence of such delay or interruption.

ARTICLE-33 SPECIAL CONDITIONS OF CONTRACT

- 33.1 The Special Conditions of CONTRACT specified vide SCHEDULE-Q hereof shall form part of CONTRACT; and wherever the provisions under Special Conditions of CONTRACT are in conflict with any of the provisions vide Article-2 to Article-48 hereof, provisions in the Special Conditions of Contract shall prevail.
- 33.2 Definitions vide Article-1 hereof shall apply to special Conditions of contract also and any supplementary Definitions given therein need not necessarily apply to other sections of CONTRACT.

ARTICLE-34 SUB-LETTING AND ASSIGNMENT

- 34.1 CONTRACT shall be binding and inure to the benefit of the parties hereto and to their successors in right and shall not be assignable by either unless the other party has given its consent in writing to such assignment.
- 34.2 CONTRACTOR shall not sub-let or sub-contract any or all of its obligations under CONTRACT to any other party without prior written consent of OWNER/CONSULTANT. In the event of CONTRACTOR sub-letting the WORK or part thereof to any other party or engaging any sub-contractor, CONTRACTOR shall still be responsible to OWNER/CONSULTANT for performance of the whole CONTRACT and shall ensure that such other party to whom WORK or part thereof is sub-let or sub-contracted perform the portion of WORK so sub-let or sub-contracted as per provisions herein and the persons employed at SITE by such other party shall be deemed employed by CONTRACTOR.

ARTICLE-35 CLAIMS

35.1 Claims by CONTRACTOR for any disputed items shall be lodged with ENGINEER-IN-CHARGE within thirty (30) days of disallowance of the same failing which the claim shall be deemed to have been waived.



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ARTICLE-36 PATENTS

- 36.1 OWNER/CONSULTANT warrant on their part that any design or instruction given by OWNER/CONSULTANT shall not be such as will cause CONTRACTOR to infringe any Letters of Patent, Registered Designs, Trade Marks, Copy-right or other protected right valid in India, in the performance of WORK.
- Subject to Article-36.1 CONTRACTOR indemnifies OWNER/CONSULTANT against any claim for infringement by CONTRACTOR of any Letters of Patent, Registered Design, Registered trade mark of Copy-right or other protected right valid in India in performance of CONTRACT. In the event of any action being brought against or claims or demands being made on OWNER / CONSULTANT because of any infringement or alleged infringement by CONTRACTOR of any of the said rights, CONTRACTOR shall immediately be notified of the same and CONTRACTOR shall within a reasonable period of time and at its own cost, make such modifications in WORK as would make it non-infringing upon any such rights or any such claims or demands or otherwise procure for OWNER/CONSULTANT such rights as would enable OWNER/CONSULTANT to continue with the use of WORK without infringement of such rights. OWNER/CONSULTANT shall not settle such action or satisfy or compromise any such claims without the written consent of CONTRACTOR and in the event of any such infringement or alleged infringement leading to litigation CONTRACTOR shall conduct the same and OWNER/CONSULTANT shall cooperate with CONTRACTOR in all reasonable manner.

ARTICLE-37 SECRECY

- 37.1 All drawings, designs, specifications, and other documents and information contained herein and any instruction given by OWNER/CONSULTANT in the performance of CONTRACT, whether patented or patentable or not, shall always remain the exclusive property of OWNER/CONSULTANT and CONTRACTOR at no time shall question or dispute such right of OWNER/CONSULTANT. For a period of fifteen (15) years from the DATE OF CONTRACT, CONTRACTOR shall keep the above documents and information and the knowledge that OWNER/CONSULTANT'S employees information contained in said documents for PROJECT as secret and confidential and shall not reproduce them or divulge them to any third-party without the specific written approval of OWNER/CONSULTANT and shall not use them for any purpose other than those covered by the intents of CONTRACT. Such documents are given on loan by OWNER/CONSULTANT to CONTRACTOR for the limited purpose of execution of WORK and are subject to return on demand.
- 37.2 CONTRACTOR shall not publish or cause to be published any information on PROJECT, CONTRACT and WORK covered by CONTRACT or CONTRACTOR'S participation in it without the prior written consent of OWNER / CONSULTANT.
- 37.3 The provisions of this article shall survive expiry or earlier termination / suspension of CONTRACT.

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ARTICLE-38 NON-WAIVER

38.1 Any failure by either party at any time, or from time to time to enforce or require strict observance performance of any of the terms and conditions of CONTRACT, or to exercise any rights hereunder, shall not constitute a waiver of such terms and conditions or rights, unless such rights have lapsed under specific provisions elsewhere in CONTRACT, and shall not affect or impair same or the right of either party any time to avail the same.

AR TICLE-39 LANGUAGE & UNITS

39.1 CONTRACT is drawn up in the English Language. All correspondence between the parties in performance of CONTRACT shall be in the English Language. Metric system of measurement shall be followed.

ARTICLE-40 FORCE MAJEURE

- 40.1 Neither CONTRACTOR nor OWNER/CONSULTANT shall be considered in default in performance of CONTRACT if such performance is prevented or delayed due to circumstances of force Majeure provided that the party so affected notifies the other in writing promptly, in any case within fifteen (15) days of its occurrence, of the existence of a situation of Force Majeure giving evidence there for. For the purposes of this Article Force Majeure means:
 - i) War or hostilities
 - ii) Riot or civil commotion
 - iii) Earthquake, flood, tempest, lightning or other natural calamities
 - iv) Accident, fire or explosion on SITE not caused by willful negligence of CONTRACTOR, and/or
 - v) Labour strike or lock-out exceeding ten (10) days in duration not caused by any deliberate act of indiscretion by CONTRACTOR.
- 40.2 If the situation of Force Majeure extends for a period exceeding thirty (30) days the parties shall meet together and discuss the further course of action, provided that if CONTRACTOR'S performance is affected OWNER / CONSULTANT may at his option and at any time remove from the scope of CONTRACTOR the portion of WORK so affected and have it executed by any other agency as OWNER/CONSULTANT may deem fit and reduce from the consideration payable to CONTRACTOR a proportionate amount.
- 40.3 CONTRACTOR shall be entitled for extension of time-schedule vide Article-4 for the performance of the portion of WORK affected by the situation of Force Majeure by a reasonable period but shall not be entitled to any financial compensation such as idle wages or escalation in cost. Decision by ENGINEER-IN-CHARGE shall be final in respect of any extension of time.



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ARTICLE-41 SETTLEMENT OF DISPUTES AND ARBITRATION

41.1 If any dispute (s) arises out of or in connection with this contract, or in respect of any defined legal relationship associated therewith or derived there from, the parties agree to submit the disputes to arbitration under the ICADR (International Centre for Alternative Dispute Resolution) Arbitration Rules 1996. The authority to appoint the Arbitrator shall be the International Centre for Alternative Dispute Resolution. The number of Arbitrator shall be one and the language of the arbitration proceedings shall be English. The place of arbitration proceedings shall be Ernakulam in Kerala.

ARTICLE-42 LAW AND LEGAL JURISDICTION

- 42.1 CONTRACT shall be governed and construed by Laws of India.
- 42.2 Any legal proceedings relating to CONTRACT shall be limited to courts of law under the jurisdiction of the Kerala High Court at Ernakulam.

ARTICLE-43 SUSPENSION AND TERMINATION

- In the event OWNER/CONSULTANT is unable or unwilling to complete or is compelled to postpone its activities relating to PROJECT at any stage during the currency of CONTRACT, OWNER/CONSULTANT may either suspend or terminate CONTRACT by giving CONTRACTOR thirty (30) days' notice.
- 43.2 If CONTRACTOR shall fail or neglect to execute work with all due diligence and expedition or shall refuse or neglect to comply with any reasonable orders given to him in writing by OWNER/CONSULTANT in connection with work or shall otherwise commit breach of any of the provisions of CONTRACT, OWNER/CONSULTANT may give CONTRACTOR notice in writing requiring to make good such failure, neglect or breach. Should CONTRACTOR fail to comply with the notice within the time specified therein, OWNER/CONSULTANT shall, without prejudice to other rights OWNER/CONSULTANT under CONTRACT, be at liberty to have such WORK or portion of WORK as CONTRACTOR has failed or neglected to execute, executed directly or through any other agency OWNER/CONSULTANT deems fit at the risk and cost of CONTRACTOR; and OWNER/CONSULTANT shall have the free use of all of CONTRACTOR'S equipment, materials and other things for the time being available at SITE for getting the WORK completed in the above-said manner to the exclusion of any right of CONTRACTOR for fair wear and tear thereof.

OWNER/CONSULTANT shall further be entitled to apply the proceeds of such equipment and unused materials of CONTRACTOR and any balance amount that may be due to CONTRACTOR for WORK actually executed towards any claims on OWNER/CONSULTANT from third parties in consequence of failure, neglect, refusal or contravention by CONTRACTOR and / or towards any expense that OWNER/CONSULTANT might have incurred in getting the WORK completed in the above-said manner, in excess of what OWNER / CONSULTANT would have had to pay CONTRACTOR as per CONTRACT.



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43.3 If CONTRACTOR shall become bankrupt or insolvent or have a receiving order made against him or shall compound with his creditors or shall commence to be wound up otherwise than for the purpose of reconstruction or shall carry on its business under a Receiver for the benefit of its creditors, OWNER/CONSULTANT may at its sole discretion either;

- a) terminate CONTRACT forthwith by notice in writing to CONTRACTOR or the Receiver or the Liquidator or to any other person in whom the CONTRACT may become rested and have the remaining WORK executed at the risk and cost of CONTRACTOR in the same manner as specified in Article-43.2 above, or
- b) give such Receiver, Liquidator or other person as aforesaid the option of carrying out the CONTRACT subject to his providing security for the due and faithful performance of CONTRACT up to such amount as may be mutually agreed upon.
- 43.4 In the event of suspension of CONTRACT vide Article-43.1 above, immediately on receipt of notice therefore from OWNER/CONSULTANT, CONTRACTOR shall suspend all activities at SITE expect those essentially to be carried out to safe-guard and secure WORK for the time being in progress in a safe manner without wastage of materials and temporarily disband or reassign CONTRACTOR'S workmen except those essentially required at SITE such as for security of CONTRACTOR'S equipments and materials. CONTRACTOR shall re-mobilise its workmen and re-commence WORK within fifteen (15) days of receipt of notice from OWNER/CONSULTANT requiring CONTRACTOR to do so. All costs reasonably incurred by CONTRACTOR in connection with temporarily winding up WORK, maintenance of SITE during period of suspension and remobilisation on withdrawal of suspension order shall be paid by OWNER/CONSULTANT in addition to Contract Price specified herein, and the amount of such additional sum shall be mutually agreed to between the parties base on detailed information provided by CONTRACTOR. CONTRACTOR shall further be entitled for extension of time- schedule corresponding to the period of suspension including permitted period for re-mobilisation.
- 43.5 In the event of termination of CONTRACT vide Article-43.1 above, immediately on receipt of notice therefore from OWNER/CONSULTANT, CONTRACTOR shall take all steps for winding up work such as cancellation of any pending orders and termination of any sub-contracts that CONTRACTOR might have entered into with others in connection with WORK, safe-guarding and securing of any WORK in progress in a safe manner, disbanding of workmen, removal of temporary construction made by CONTRACTOR at SITE and return of all EQUIPMENT, special tools, un-used materials and documents that OWNER/CONSULTANT has supplied to CONTRACTOR. OWNER/CONSULTANT shall pay CONTRACTOR for the portion of WORK executed till such termination less amounts already paid, together with any reasonable cost necessarily incurred by CONTRACTOR pursuant to such termination as may be mutually agreed upon between the



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parties hereto based on detailed information provided by CONTRACTOR. CONTRACTOR shall not be entitled for any payment in respect of the portion of WORK left unexecuted.

43.6 Upon termination of CONTRACT for any reason, obligations of the parties hereto shall cease except for the liabilities of either party to the other in respect of obligations that accrued prior to, the date of such termination.

ARTICLE-44 RECOVERY OF DUES FROM CONTRACTOR

- 44.1 OWNER/CONSULTANT shall have recourse to CONTRACTOR for any costs, claims, demands, proceedings, damages and expenses whatsoever arising out of or in connection with any failure of CONTRACTOR to perform any of his obligations under the terms of CONTRACT.
- 44.2 Any amount due from CONTRACTOR as per CONTRACT shall be deducted from money due or becoming due to CONTRACTOR under CONTRACT or under any other account or may be recovered by arbitration vide Article-41 or by action at law.

ARTICLE-45 CONSEQUENTIAL LOSSES

- 45.1 Liabilities of either party to the other are limited to those specifically provided for herein.
- 45.2 Neither OWNER/CONSULTANT nor CONTRACTOR shall under any circumstances be liable in respect of any in direct or consequential loss or loss of business or loss of profit suffered by the other party in connection with or arising out of CONTRACT except as specified in Article-31 hereof.

AR TICLE-46 EFFECTIVE DATE AND VALIDITY

- 46.1 CONTRACT shall become effective on signature by either party after the other.
- 46.2 Unless terminated by OWNER/CONSULTANT, CONTRACT shall remain valid till obligations of both parties are fulfilled.

ARTICLE-47 NOTICES & ADDRESSES

- 47.1 All notices under CONTRACT shall be in writing.
- 47.2 Except as otherwise specified in CONTRACT, it shall be sufficient in all respects if notices are either delivered at or sent by registered post at following addresses;
 - a) To OWNER/CONSULTANT:



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b) To CONTRACTOR:

47.3 Any telegram or telex messages sent shall be confirmed in writing in the above-said manner.

ARTICLE-48 ENTIRE AGREEMENT

- 48.1 CONTRACT to the exclusion of all prior arrangements, statements or representation, whether oral or written constitutes the full agreement between the parties hereto relating of WORK.
- 48.2 No variations to the terms of CONTRACT shall be valid unless it is made in writing and signed on behalf of both OWNER/CONSULTANT and CONTRACTOR by their respective authorized representatives.



SCHEDULE-A

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SCOPE OF WORK

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

1. Introduction

- 1.1 The Fertilisers and Chemicals Travancore Limited(FACT) herein after also referred to as "OWNER" is a Government of India Public Sector undertaking involved in the manufacture and marketing of nitrogenous, phosphatic and potassic fertilizers as well as a variety of industrial chemical products. The company has presently two manufacturing units, one at FACT-CD, Ambalamugal and the other at FACT-UC, Udyogamandal, both located in the state of Kerala.
- **1.2** FACT intends to install one number of New 10000 MT, Double Wall Double Integrity, Ammonia Storage Tank and Associated Facilities at FACT-CD, Ambalamugal.
- **1.3** FACT has assigned the Project Management Consultancy (PMC) works to its own Engineering Division The FACT Engineering and Design Organisation (herein after referred to as FEDO).

2.0 SCOPE OF WORK

- 2.1 The present NIT specifies the requirements for selection of an LSTK Contractor for supply of design, engineering, procurement, fabrication, supply, transportation, handling, storage, erection, testing and commissioning of the new ammonia storage tank, all Civil works and associated facilities at FACT-CD, Ambalamugal on a Lump-Sum Turnkey Basis on single point responsibility.
- 2.2 Detailed Scope of Work is described in the Special Conditions of Contract (Doc. No. 32686-25-SCC-001) and technical documentation in Part II Technical of the tender attached.





SCHEDULE-B

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PROGRAMME OF WORK

Tender No: MM/172/E23465 dt 31.05.2021

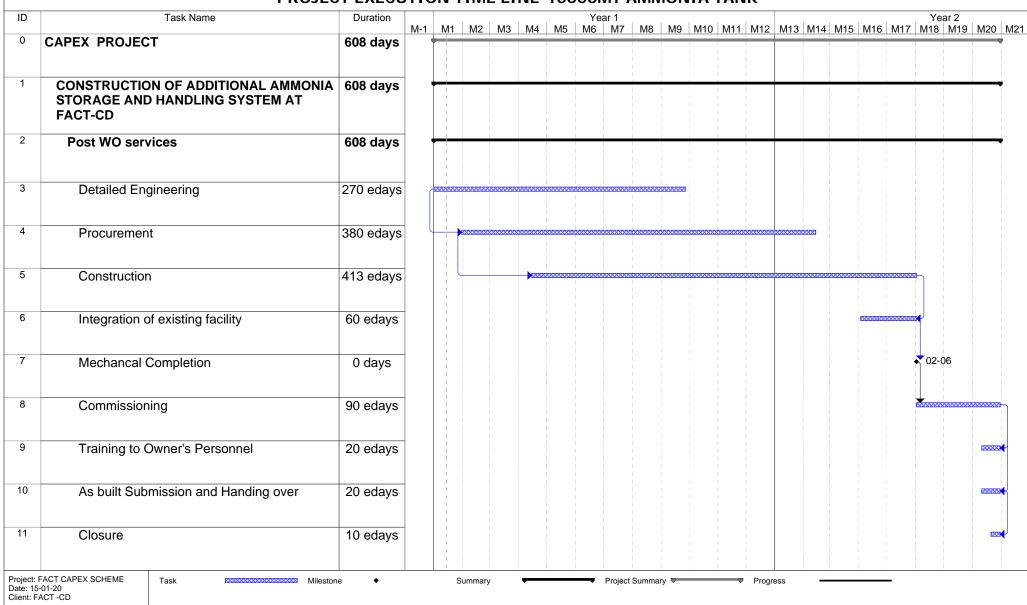
Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

- i. The work shall be completed in all respects within a period of **20(Twenty)**MONTHS from the date of **LOI or Work-to-Proceed Notice** issued by the OWNER/Engineer-in-Charge, whichever is later and this shall be reckoned as the **ZERO DATE** of the Contract.
- ii. The BIDDER shall adhere to the Programme of Work as per Bar Chart attached.
- iii. The priorities of execution shall be as fixed by the Engineer-in- Charge at the time of execution.

Name, Signature & Address of BIDDER (or digitally signed)



FACT CAPEX SCHEME PROJECT EXECUTION TIME LINE-10000MT AMMONIA TANK







TECHNICAL DOCUMENT

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Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE

TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

The list of technical documentation applicable for the WORK is attached herewith:





LIST OF ATTACHMENTS OF CONTRACT DOCUMENT TENDER NO:MM/172/E23465 dt 31.05.2021

NAME OF WORK:NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMUGAL ON LSTK BASIS

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SI No	Doc. No.	Description	Pages	
- 10	(PART-II - TECHNICAL DOCUMENT)			
Τ		SECTION-1 (PROCESS)		
1	32686-11-PS-001-DP	PROJECT DESCRIPTION	7	
2	32686-11-PS-001-DB	DESIGN BASIS	8	
3	32686-11-PS-001-PH	PROCESS DESIGN PHILOSOPHY	15	
4	32686-11-PS-001-SW	SCOPE OF WORK	10	
5	32686-11-PS-001-PGT	PERFORMANCE GUARANTEE TEST	9	
6	32686-03-SK-00002	PLOT PLAN	1	
7	-	GEO TECHNICAL INVESTIGATION REPORT	15	
8	32686-11-PC-001	PIPING MATERIAL CLASSIFICATION	2	
9	32686-11-PS-002-SPL	SPECIAL REQUIREMENTS OF THE PROJECT	1	
10	32686-11-PS-002-INS	SCOPE OF INSPECTION AND TESTS	2	
11	32686-11-PS-	VENDOR DATA REQUIREMENTS	4	
	001,002&003-VDR			
12	32686-11-PS-002&003-VL	APPROVED VENDOR LIST	2	
13	32686-11-PD-001TO004	TENDER PURPOSE P&ID OF PROPOSED 10,000 MT	4	
II		SECTION-II (MECHANICAL)		
1	32686-02-PS-001 PH	DESIGN PHILOSOPHY - STATIC	29	
2	32686-01-PS-001 PH1	DESIGN PHILOSOPHY (ROTATING EQUIPMENT)	11	
3	32686-01-PS-001 PH2	DESIGN PHILOSOPHY -FIRE FIGHTING	9	
4	32686-01-DA-001	ROTARY TYPE POSITIVE DISPLACEMENT COMPRESSOR	9	
5	32686-01-DA-002	CENTRIFUGAL PUMP	3	
6	32686-02-PS-001 SPR	SPARES - STATIC	1	
7	32686-01-PS-001 SPR1	SPARES (ROTARY)	2	
8	32686-01-PS-001 SPR2	SPARES -FIRE FIGHTING	1	
9	32686-02-PS-001 VDR1	VENDOR DATA REQUIREMENTS PRESSURE VESSELS	2	
10	32686-02-PS-001 VDR2	VENDOR DATA REQUIREMENTS (HEAT EXCHANGERS)	2	
11	32686-02-PS-001 VDR3	VENDOR DATA REQUIREMENTS STORAGE TANK	2	
12	32686-01-PS-001 VDR1	VENDOR DATA REQUIREMENT SCREW COMPRESSOR	1	
13	32686-01-PS-001 VDR2	VENDOR DATA REQUIREMENT CENTRIFUGAL PUMP	1	
14	32686-01-PS-001 VDR3	VENDOR DATA REQUIREMENT COOLING TOWER	2	
15	32686-01-PS-001 VDR4	VENDOR DATA REQUIREMENT (EOT CRANE)	1	
16	32686-01-PS-001 VDR5	VENDOR DATA REQUIREMENT FIRE HYDRANT SYSTEM	1	
17	32686-01-PS-001 VDR6	VENDOR DATA REQUIREMENT CO2 FIRE EXTINGUISHER SYSTEM	1	
18	32686-01-PS-001 VDR7	VENDOR DATA REQUIREMENT AIR CONDITIONING SYSTEM	2	
19	32686-02-PS-001 VL	SUGGESTED VENDOR LIST - STATIC	5	
20	32686-01-PS-001 VL1	SUGGESTED VENDOR LIST - ROTARY	4	
21	32686-01-PS-001 VL2	SUGGESTED VENDOR LIST - FIRE FIGHTING	2	
22	32686-02-PS-001 RN	RATE FOR ADDITION/DELETION OF NOZZLES	1	
	I	l.		

ATTACHMENTS	3 1 1 26 35 13 11 2 28 1 1 1 6
24 02DS016/2010 DESIGN STANDARD-LADDERS 25 02DS022/2010 DESIGN STANDARD - PLATFORM 26 02ES042/2010 ENGINEERING SPECIFICATION- COLD INSULATION 27 02ES029/2010 ENGINEERING SPECIFICATION- HOT INSULATION 28 02ES023/2010 ENGINEERING SPECIFICATION- PAINTING 30 SECTION-III (PIPING) 1 32686-03 -PS-001 VDR VENDOR DATA REQUIREMENT 2 32686-03 -PS-001 SPL SPECIFICATION- PAINTING 3 32ES001/10 SPECIFICATION- PAINTING 4 03ES001/10 PIPING DESIGN 4 03ES001/10 PIPING DESIGN 5 25ES205 / 10 FABRICATION & ERECTION OF STEEL PIPING 6 03DS013 VENTS & DRAINS FOR PIPE LINES 7 03DS010 STANDARD DRAIN & BY- PASS SIZE 8 03DS202 PIPING TRUNNION SELECTION 9 03DS003 PIPING SPACING 10 03DS007 GUIDE SPACING - VERTICAL LINES 11 03DS305 TABLE OF BASIC SPANS AND UNIT LIGHT WEIGHT WIT BATTERY LIMITS 12 03DS342 BRANCH PIPING - DIMENSION OF REINFORCEMENT P/ IS 32686-03 -PS-001 SV SUB VENDOR LIST 17 13 12 12 12 12 13 14 14 14 14 14 14 14	1 1 26 35 13 11 2 28 1 1 1 6
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3 GEO TECHNICAL REPORT	25
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7 13ES900/14 ENGG SPECIFICATION – GENERAL REQUIREMENTS ELECTRICS	1
ELECTRICS	10
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9 13ES924/14 ENGG SPECIFICATION-ELECTRIC FOR TURNKEY INSTALLATION	10
10 32686-13-DA-924-01 DATA SHEET- TURNKEY INSTALLATION	10
11 32686-13-TP-924-01 TECHNICAL PARTICULARS- ELECTRIC FOR	
12 13ES903/14 ENGG SPECIFICATION – HIGH VOLTAGE SWITCHBOAI	6
13 32686-13-TP-90301 TECHNICAL PARTICULARS- HIGH VOLTAGE SWITCHBO	6 RDS 16
14 13ES919/14 ENGG. SPECIFICATION- HIGH VOLTAGE INDUCTIONS	RDS 16
15 32686-13-TP-919-01 TECHNICAL PARTICULARS- HIGH VOLTAGE INDUC	RDS 16 DARD 5
16 13ES909/14 ENGG. SPECIFICATION- UNINTERRUPTIBLE POWER SUPPLY SYSTEM	RDS 16 DARD 5 TION 7

17 32686-13-TP-909-0-1 TECHNICAL PARTICULARS- UNINTERRUPTIBLE POWER SUPPLY SYSTEM SCOPE OF WORK - MECHANICAL (DIESEL ENGINE) 2 32686-13-PS-921 DIESEL ENGINE - SPL.MECH) 5 32686-10-DA-001 DATA SHEET - DIESEL ENGINE 2 32686-10-PS-021 LUBRICATION DATA 1 LURICOCCH) 1 1 LURICOCCH) 2 312686-13-PS-921 LUBRICATION DATA 1 LURICOCCH) 2 312686-13-PS-921 LUBRICATION DATA 1 LURICOCCH) 2 312692-1/14 ENGG SPECIFICATION - ALTERNATORS AND ACCESSORIES 4 2 2 312592/1/4 ENGG SPECIFICATION - ALTERNATORS AND ACCESSORIES 5 32686-13-TP-92101 TECHNICAL PARTICULARS- ALTERNATORS AND ACCESSORIES 4 2 32686-13-TP-92101 TECHNICAL PARTICULARS- BATTERY & CHARGER SYSTEM 8 2 32686-13-TP-920701 TECHNICAL PARTICULARS- BATTERY & CHARGER SYSTEM 4 2 32686-13-TP-92201 TECHNICAL PARTICULARS- BATTERY & CHARGER SYSTEM 4 2 32686-13-PS-9201 TECHNICAL PARTICULARS- ELECTRICS FOR EOT CRANE 6 3 3 3 3 3 3 3 3 3	47	100000 40 TD 000 04	TECHNICAL DARTICH ARC HAUNTERDURTING	
18 32886-13-PS-921 SCOPE OF WORK - MECHANICAL (DIESEL ENGINE) 2 3W(MECH) 19 32886-13-PS-921 DIESEL ENGINE - SPL. REQUIREMENTS 5 SPL. MECH. DIESEL ENGINE 2 2 32886-13-PS-921 LUBRICATION DATA 1 LD(MECH) DATA SHEET - DIESEL ENGINE 2 2 32886-13-PS-921 LUBRICATION DATA 1 LD(MECH) DATA SHEET - DIESEL ENGINE 2 2 3 1 1 2 2 1 2 2 2 1 2 2	17	32686-13-1P-909-01	TECHNICAL PARTICULARS- UNINTERRUPTIBLE	8
19 32686-13-PS-921- DIESEL ENGINE - SPL. REQUIREMENTS SPL(MECH)	18			2
20 32686-01-DA-001 DATA SHEET - DIESEL ENGINE 2	19	32686-13-PS-921-	DIESEL ENGINE - SPL. REQUIREMENTS	5
LD(MECH)	20		DATA SHEET - DIESEL ENGINE	2
23 13ES921/14	21		LUBRICATION DATA	1
ACCESSORIES 126H317-92101 TECHNICAL PARTICULARS - ALTERNATORS AND ACCESSORIES 126H317-92101 TECHNICAL PARTICULARS - ALTERNATORS AND ACCESSORIES 126H317-90701 TECHNICAL PARTICULARS - BATTERY & CHARGER SYSTEM 8 32686-13-TP-90701 TECHNICAL PARTICULARS - BATTERY & CHARGER SYSTEM 4 136E9322/44 ENGG. SPECIFICATION - ELECTRICS FOR EOT CRANE 6 6 6 8 32686-13-TP-92201 TECHNICAL PARTICULARS - ELECTRICS FOR EOT CRANE 2 29 13ES927/14 ENGG. SPECIFICATION- LIGHTING INSTALLATION 6 6 6 8 32686-13-PS-2001-SV SUB VENDOR LIST SESSIBIT STATES LIST 4 31 32586-13-PS-001-SV SUB VENDOR LIST 4 32 32686-13-PS-001-SV SUB VENDOR LIST 4 32 32686-14-PS-001-SV SUB VENDOR LIST 3 3 3 3 3 3 3 3 3	22	01ES013/95	ENGINEERING SPECIFICATION - DIESEL ENGINES	2
ACCESSORIES	23	13ES921/14		9
26 32686-13-TP-90701 TECHNICAL PARTICULARS- BATTERY & CHARGER SYSTEM 4 27 13ES922/14 ENGG. SPECIFICATION- ELECTRICS FOR EOT CRANE 6 28 32686-13-TP-92201 TECHNICAL PARTICULARS - ELECTRICS FOR EOT CRANE 6 30 13ES915/14 ENGG. SPECIFICATION- LIGHTING INSTALLATION 6 30 13ES916/14 ENGG. SPECIFICATION- CABLING INSTALLATION 4 31 13ES916/14 ENGG. SPECIFICATION- EARTHING 4 32 23686-13-PS-001-SV SUB VENDOR LIST 4 33 32686-13-PS-001-SPR SPARES LIST 3 VI SECTION-VI (INSTRUMENTATION) 5 1 32686-14-PS-001-SIT- INST-1 SIT - TRANSMITTERS 1 1 1NST-1 33 2686-14-PS-0001-SIT- INST-2 1 4 32686-14-PS-0001-SIT- INST-3 SIT - RADAR/SERVO 1 1 1NST-4 1 1 6 32686-14-PS-0001-SIT- INST-6 SIT - CABLES 1 1 1NST-7 32686-14-PS-0001-SIT- INST-9 SIT - ELECTRICAL FITTINGS AND JUNCTION BOXES	24	32686-13-TP-92101		5
27 13ES922/14 ENGG. SPECIFICATION- ELECTRICS FOR EOT CRANE 2 28 32686-13-TP-92201 TECHNICAL PARTICULARS - ELECTRICS FOR EOT CRANE 2 29 13ES927/14 ENGG. SPECIFICATION- LIGHTING INSTALLATION 6 6 6 6 6 6 6 6 6	25	13ES907/14	ENGG. SPECIFICATION – BATTERY & CHARGER SYSTEM	8
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29 13ES927/14 ENGG. SPECIFICATION- LIGHTING INSTALLATION 6	27	13ES922/14	ENGG. SPECIFICATION- ELECTRICS FOR EOT CRANE	6
30 13ES915/14 ENGG. SPECIFICATION- CABLING INSTALLATION 4 31 13ES916/14 ENGG. SPECIFICATION- EARTHING 4 4 32 32686-13-PS-001-SV SUB VENDOR LIST 4 4 3 3 3 3 3 3 2686-13-PS-001-SV SPARES LIST 3 3 3 3 3 3 3 3 3	28	32686-13-TP-92201		2
31 13ES916/14 ENGG. SPECIFICATION- EARTHING 4 32 32686-13-PS-001-SV SUB VENDOR LIST 3 3 3 32686-13-PS-001- SPR SPARES LIST 3 3 3 3 3 3 3 3 3	29	13ES927/14	ENGG. SPECIFICATION- LIGHTING INSTALLATION	6
32 32686-13-PS-001-SV SUB VENDOR LIST 3 3 3 32686-13-PS-001-SPR SPARES LIST 3 3 3 3 3 3 3 3 6 3 5 5 5 3 3 3 3 3 3	30	13ES915/14	ENGG. SPECIFICATION- CABLING INSTALLATION	4
33 32686-13-PS-001- SPR SPARES LIST SECTION-VI (INSTRUMENTATION) SECTION-VI (INSTRUMENTATION) 1 32686-14-PS-0001 SW SCOPE OF WORK 1 INST	31	13ES916/14	ENGG. SPECIFICATION- EARTHING	4
VI	32	32686-13-PS-001-SV	SUB VENDOR LIST	4
1 32686-14-PS-001 SW INST SCOPE OF WORK 1 2 32686-14-PS-0001-SIT-INST-1 SIT - TRANSMITTERS 1 3 32686-14-PS-0001-SIT-INST-2 SIT - ANALYSERS 1 4 32686-14-PS-0001-SIT-INST-3 SIT - AFR 1 1 1NST-3 1 5 32686-14-PS-0001-SIT-INST-4 SIT - RADAR/SERVO 1 6 32686-14-PS-0001-SIT-INST-5 SIT - TUBES 1 1 1NST-6 1 8 32686-14-PS-0001-SIT-INST-6 SIT - CABLES 1 8 32686-14-PS-0001-SIT-INST-7 SIT - ELECTRICAL FITTINGS AND JUNCTION BOXES 1 10 32686-14-PS-0001-SIT-INST-9 SIT - FLOWMETERS 1 11 32686-14-PS-0001-SIT-INST-9 SIT - FLOWMETERS 1 12 32686-14-PS-001 VDR INST VENDOR DATA REQUIREMENTS 4 1NST 1 13 32686-14-PS-001 SPL INST SPECIAL REQUIREMENT OF THE PROJECT 38 13 32686-14-PS-001 SPR INST SPARES 6 15 32686-14-PS-0001 SV SUB VENDOR LIST 10 10 INST 10	33	32686-13-PS-001- SPR	SPARES LIST	3
INST 32686-14-PS-0001-SIT- SIT - TRANSMITTERS 1 1 INST-1 3 32686-14-PS-0001-SIT- SIT - ANALYSERS 1 1 INST-2 4 32686-14-PS-0001-SIT- SIT - AFR 1 INST-3 5 32686-14-PS-0001-SIT- SIT - RADAR/SERVO 1 INST-5 1 INST-5 1 INST-5 1 INST-5 1 INST-6 3 2686-14-PS-0001-SIT- INST-6 1 INST-7 3 3 3 2686-14-PS-0001-SIT- INST-7 3 3 3 3 3 3 3 3 3	۷I		SECTION-VI (INSTRUMENTATION)	
INST-1	1		SCOPE OF WORK	1
INST-2	2		SIT - TRANSMITTERS	1
INST-3	3		SIT - ANALYSERS	1
INST-4		INST-3	SIT - AFR	1
INST-5		INST-4	SIT - RADAR/SERVO	1
INST-6		INST-5	SIT - TUBES	1
INST-7	7		SIT - VALVES	1
INST-8		INST-7		1
INST-9		INST-8	SIT - ELECTRICAL FITTINGS AND JUNCTION BOXES	1
INST		INST-9	SIT - FLOWMETERS	1
INST		INST	VENDOR DATA REQUIREMENTS	4
14 32686-14-PS-001 SPR INST SPARES 6 15 32686-14-PS-0001 SV INST SUB VENDOR LIST 10	12		SPECIAL REQUIREMENT OF THE PROJECT	38
INST 15 32686-14-PS-0001 SV SUB VENDOR LIST 10 INST			DATASHEET FOR PLC	9
15 32686-14-PS-0001 SV SUB VENDOR LIST 10 INST	14		SPARES	6
ATTACHMENTS	15	32686-14-PS-0001 SV	SUB VENDOR LIST	10

16	14ES008/15	FIELD INSTRUMENT ERECTION SPECIFICATION	30
17	14ES009/15	DCS /PLC/SCADA/SYSTEM ERECTION SPECIFICATIONS	4
18	14ES010/15	GENERAL SPECIFICATION FOR FIELD INSTRUMENTATION	12
19	14ES011	TANK FARM MANAGEMENT SYSTEM	25
20	14ES013/18	INSTRUMENTATION PANEL	4



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SITE CONDITION

Tender No: MM/172/E23645 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD,

AMBALAMEDU ON LSTK BASIS

The proposed site for 10000MT AMMONIA TANKis inside the existing plant premises located at FACT Cochin Division, Ambalamedu, Kochi, Kerala.

Proposed layout drawing attached and Site Data provided with Part-II TECHNICAL of the tender.





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SUPPLIES BY OWNER

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW $10000\ \mathrm{MT}\ \mathrm{DOUBLE}\ \mathrm{WALL}\ \mathrm{DOUBLE}\ \mathrm{INTEGRITY}\ \mathrm{AMMONIA}$

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD,

AMBALAMEDU ON LSTK BASIS

 ${\bf NO}$ t ools/tackles/materials/scaffolding/machinery/manpower,a n y / all incidentalitemsshall be supplied by the **OWNER**.





SCHEDULE-F

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SCHEDULE OF PRICES

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

THE FOLLOWING SHEETS WILL FORM THE SCHEDULE OFPRICE OF THE CONTRACT

FORM -F

- a) Form F1-Schedules of Quantities of Work without rates (1 Page)
- b) Form F2-Schedule of Rates for Extra items of work (1 Page)

Name, Signature & Address of Contractor (or digitally signed)





SCHEDULE-F2

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SCHEDULE OF RATES FOR EXTRA ITEMS OF WORK

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD,

AMBALAMEDU ON LSTK BASIS

The following procedure shall be followed for arriving at unit rates for extra items of work

- Derive from rates for similar items of work already available in the Schedule of Items of Work
- b) If rates as per (a) above are not available, rates shall be worked out from data on the basis of which the estimate for the work was prepared, to which over all Tender variation shall be applied.
- c) If rates cannot be worked out on the basis of (a) and (b) above, then rates shall be derived on the basis of actual cost of materials used, labour engaged, hire charges of machinery used and all that is necessary for the work, plus a margin of 10 % towards Contractor's profit and overheads.

Name, Signature & Address of contractor (or digitally signed)





SCHEDULE-G

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PAYMENT SCHEDULE

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD,

AMBALAMEDU ON LSTK BASIS

1. Mobilisation Advancewill NOT be paid for the work.

2. PAYMENT OF WAGES TO THE WORKERS shall be made only through bank transactions and proof thereof to be submitted along with the bill. Payment of wages to the staff of the contractor shall not be linked to the clearance of bills by FEDO/FACT

3. **RUNNINGBILLS**

Interim payment will be made against running bills at Ninety (90) percent of the value of appropriate invoice submitted and for which tests prescribed, if any, are completed, after deductions on following accounts:

- a) Cost of departmental issues proportionate to quantity used in WORK, measured and billed for, including wastage and losses.
- b) Hire charges for OWNER'S Construction Equipment used till date of respective running bills.
- c) Income Tax at prevailing rates.
- d) Any other amount due from CONTRACTOR to OWNER

4. **FINALPAYMENT**

Final Contract price based on WORK actually performed, will be paid after completion of work in all respects, issue of taking over certificate by OWNER, settlement of account of all departmental issues and reconciliation of its use/ return, clearance of SITE and removal of Temporary Structures and debris and settlement of all pending claims on account of labour employment by CONTRACTOR at SITE, after adjustment for the following:

- i) Deduction of all previous payments made.
- ii) Recovery of value of departmental supplies including penal recoveries if any.





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PAYMENT SCHEDULE

- iii) Recovery of hire charges for OWNER'S Construction Equipment made available for the WORK.
- iv) Recovery of Mutually agreed Damaged for Delay in Completion if any due
- v) Income Tax at prevailing rate.
- vi) Any other amount due from CONTRACTOR to OWNER.
- vii) TDS or GST (If applicable).

At the time of FINAL PAYMENT, CONTRACTOR shall submit, a Clearance Certificate from the OWNER/FEDO through the ENGINEER-IN-CHARGE of the WORK.

Name, Signature & Address of BIDDER (or digitally signed)





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SITE FACILITIES

Tender No: MM/172/E23465 dt 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD.

AMBALAMEDU ON LSTK BASIS

The following site facilities will be provided by OWNER at no cost to CONTRACTOR as provided in Articles 18 and 20ofGCC.

1. CONSTRUCTIONWATER

2. CONSTRUCTION POWER

The above will be provided at **ONE POINT EACH** at the premises of the site. CONTRACTOR shall make his own arrangements to extend the lines to the points of requirements.

NOTE: CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION ALONG WITH HIS QUOTATION.

- 1. List of Electrical Equipment/Tools proposed to be deployed for the work indicating kW rating of each and maximum demand.
- 2. Peak requirement Water.
- 3. Land space required by CONTRACTOR for Site Office, Site Stores and Work Shop.





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FORM OF BANK GAURANTEE FOR SECURITY DEPOSIT

(In Rs.200/- stamp paper)

NAME OF BANK & BRANCH ADDRESS

Bank under this guarantee.

M/S. FERTILISERS AND CHEMICALS TRAVANCORE LIMITED (FACT) UDYOGAMANDAL, KERALA - 683501		
Sirs,		
Guarantee No: Amount of Guarantee – Rs. Guarantee cover fromto Last date for lodgment of claim:		
This Deed of Guarantee executed by the(Name of Bank), constituted under the		
This guarantee is issued subject to the condition that the liability of the Bank under this guarantee is limited to a maximum of Rs/- (Rupees only) and guarantee shall remain in full force up to		
WHEREAS M/s Fertilizers and Chemicals, Travancore, Ltd, Udyogamandal P.O. Kerala (hereinafter referred to as the Company) has placed a Work Order No		
In consideration of the Company having agreed to accept a Bank guarantee from us towards such security deposit in lieu of the cash deposit in accordance with the terms and conditions of the above work order, we The(Name of Bank) the Bank (hereinafter referred to as the Bank) do hereby undertake to pay the Company merely on demand any sum or sums from time to time demanded by the Company up to a maximum of Rs/- (Rupees		
We the said Bank do hereby undertake to pay the amount so demanded by the Company without		

any demur merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or suffered or would be caused to or suffered by the Company by reason of breach by the said contractor of any of the terms and conditions contained in the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the





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FORM OF BANK GAURANTEE FOR SECURITY DEPOSIT

We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the said contractor in any suit or proceedings pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this guarantee shall be a valid discharge of our liability for payment there under and the said contractor shall have no claim against us for making such payment.

We,(Name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contractor and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said contract have been fully paid and its claim satisfied or discharged or till the Company certified that the terms and conditions of the said contract have been fully and properly carried out by the said contractor and accordingly discharges this guarantee.

We,(The Name of Bank) further agree with the said Company that they shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or forebear from enforcing any of the terms and conditions governing the said contract or securities available to the Company and the said Bank shall not be released from its liability under these presents by any exercise by the Company of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance act or omission on the part of the Company or any indulgence by the Company to the said contractor any other matter or thing whatsoever which under the law relating to sureties, but for this provision, have the effect of so relieving us.

This guarantee shall not be affected by any change in the constitution of the Bank or the Company or the said contractor not shall this guarantee be affected by the change in the constitution of the Company or the said contractor by absorption with any other body or corporation and this guarantee shall be available to or enforceable by such body or corporation.

Any notice by way of request, demand or otherwise hereunder may be sent by post to the Bank addressed as aforesaid and if sent by post, it shall be deemed to have been given at the time when it would be delivered in due course of post and in proving such notices when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and certificate signed by an officer of the Company that the envelope was so posted, shall be conclusive.

Disputes, differences if any relating to or arising out of this Bank Guarantee shall be settled by courts having jurisdiction over Udyogamandal in Kerala State where the registered office of the Company is situated and no other court shall have jurisdiction in the matter.





This Guarantee.

TENDER FOR NEW 10000 MT AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD

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FORM OF BANK GAURANTEE FOR SECURITY DEPOSIT

We,(Name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous, consent of the Company in writing.	
Dated this theday ofTwo Thousand and	
For (Name of Bank)	
Authorized Official Name Designation	
Place: Date:	
Full Address of the Branch issuing	





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RELEASE CERTIFICATE

PROFORMA FOR RELEASE CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS, THAT
as CONTRACTOR), for and in consideration of the receipt of the sum of Rs
(Rupees only) by Contractor from
FACT Limited, representing the final payment under Contract No dated
the
AND FACT, hereby releases and forever discharges FACT and their respective successors
and assign, and the property of either of them from all claims and demands whatsoever in
any manner arising out of, or related to, said Contractor labour performed or material and
equipment furnished by the contractor in connection with, or incidental to the construction
of
For FACT at
In consideration of, and for the purpose of including FACT to make the aforesaid final
payment, the Contractor hereby represents warrants and agrees that (1) all sums due or to
become due all debts, accounts, damages, obligations, claims and demands of every
nature and kind whatsoever in any manner arising out of, or related to, labour performed
or materials and equipment furnished in connection with, or incidental to, said
construction have been paid and satisfied, (2) there are no unsettled claims for injuries to,
or death of any persons and damage to, or destruction of property in any manner arising
out of, or related to, the aforesaid construction and (3) it shall indemnify and hold
harmless FACT and their respective successors and assigns from and against any
claims, demands, liens, claims of lien, judgment, attachments and costs related hereto in
any manner, arising out of, or related to, the aforesaid construction.
The Contractor acknowledges, the guarantee purposes, that the date of acceptance of the
work performed under Contract No is
hereby established as
Whenever used in the within instrument of release and indemnity, the name FACT shall

refer to THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED.





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RELEASE CERTIFICATE

duly authorized officers this		
OI	20xx	
(CORPORATE SEAL)		
WITNESS:	Name of Contractor	
NAME:		
SIGNATURE:	SIGNATURE:	
TITLE:	TITLE:	
PLACE: DATE:		





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Tender No : MM/172/E23465 dt. 31.05.2021

Name of Work: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA

STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD.

AMBALAMEDU ON LSTK BASIS

- 1. The contractor shall observe all statutory and legal requirements by Central and State Governments applying to the work as well as any local regulations applying to the site issued by OWNER/CONSULTANT or any other authority.
- 2. Particular attention is drawn to the following:
 - a) In case of accident, OWNER'S/CONSULTANT'S Safety Engineer/Engineer-in-Charge shall be informed in writing within 24 hours of occurrence of the accident. The Contractor shall strictly follow regulations laid by Factory Inspector and Government Authorities in this regard.
 - b) Fencing all Contractors plant, platforms, excavations
 - c) Compliance with all electricity regulations
 - d) Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear.
 - e) Operation of concrete mixer machine, vibrator, poclain/JCB, Generator etc
- 3. Staircases, doors or gangways must not be obstructed in any way that will interfere with means of access or escape.
- 4. The Contractor shall notify OWNER/CONSULTANT of his intention to bring on site any equipment or container holding liquid or gaseous fuel or other substances which might create a hazard. The OWNER/CONSULTANT will have the right to prohibit the use of such equipments or to prescribe the conditions under which such equipment may be used.
- Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the Contractor shall be responsible for carrying out such provisions and/or storage in accordance with the rules and regulations laid down in Petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have the prior approval of OWNER/CONSULTANT. In case approvals are required from Chief Inspector of Explosives or any statutory authorities, the Contractor shall be responsible for obtaining the same.
- 6. The Contractor shall be responsible for the safe storage and use of any radiographic sources or those of his sub-contractor.
- 7. "Work Permit' in the prescribed proforma shall be obtained from OWNER'SCONSULTANT'S Safety Engineer/Engineer-in-Charge before carrying out any work within the project premises in the following situations:
- a) Any work involving open flames and sparks such as welding, gas cutting, soldering, grinding etc.





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- b) Sand blasting
- c) Entry into hazardous and potentially hazardous areas
- 8. Good house-keeping must be practiced by Contractor's personnel at all times within the project area.
- 9. For the safe execution of certain works, personal protective Safety devices as stipulated by Safety Codes/Safety Engineer shall be provided and maintained by the Contractor.
- 10. Any unsafe work practice/working conditions during execution of work shall be corrected immediately on brining the same to the attention of Contractor by OWNER'S/CONSULTANT'S Safety Engineer.
- 11. Contractor shall strictly adhere to safe traffic practices within project area with respect to speed limit, parking of vehicles etc.
- 12. <u>Electrical Safety Regulations</u>
- In no circumstances will the Contractor interfere with fuses and electrical equipments belonging to the OWNER or other Contractor.
- Before the Contractor connects any electrical appliances to any plug or sockets belonging to the other Contractors or OWNER he will
- a) Satisfy OWNER/Engineer-in-Charge that the appliances in good working condition.
- b) Inform the OWNER/Engineer-in-Charge of the maximum current rating, voltage and phase of the appliance.
- c) Obtain permission from OWNER/Engineer-in-Charge for taking power connection from specified point.
- Permission for power connection will not be granted until OWNER/Engineer-in-Charge is satisfied that the appliance is in good working condition and proper earthing connection provided.
- No electric cable in use by other Contractor/OWNER will be disturbed without prior permission. No weight of any description will be imposed on any such cable and no ladder or similar equipment will rest against or be attached to it.
- 12.5 No work must be carried out on any live equipment. The equipment must be made safe and a "WORK PERMIT" issued by Engineer-in-Charge before any work is carried out.
- 12.6 Contractor shall employ a full time Electrician to maintain the temporary electrical installation of the contractor.
- 12.7 Contractor shall follow detailed Safety Procedure issued by OWNER/CONSULTANT at the time of commencement of work and updated from time to time.
- 13.0 Contractor shall have arrangements to transport his workmen in the event of an accident at work site.





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ANNEXURE -1

PROCEDURE

FOR

SAFETY ASSURANCE

IN

CONSTRUCTION SITES





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PROCEDURE FOR SAFETY ASSURANCE IN CONSTRUCTION SITES PART –A: PROCEDURE

1.0 Scope

This document explains the safety procedures to be followed in construction sites; directly managed by FEDO.

2.0 Responsibility

Safety activities in each construction site shall be under the control of a Resident Chief Construction Manage or Resident Construction Manager or Resident Engineer or a Safety Engineers as the case may be depending upon the magnitude of the work, as decided by GM (FEDO).

3.0 Safety Field Organisation

In all the sites which are large in magnitude a safety engineer will be nominated, who will be responsible for the adherence of all safety aspects in the construction site and co-ordinate with each sub-contractors who are responsible for construction activities. For other project FEDO's RCCM/RCM/RE will be responsible for the safety activities at site.

4.1 Contractor's Obligations

As the site activities are carried out through work contracts/packages, the contractors/vendors are totally responsible for the safety aspects of their individual sites and have to comply with all safety provisions as stipulated by FEDO/Bureau of Indian Standards/the Electricity Act/OISD and other acts as applicable, in respect of all personnel directly or indirectly employed by the Contractors for the concerned works.

The following practices shall be followed at construction sites by the Contractors so as to ensure safety, health of people working at construction sites and prevention of fire; which shall be strictly implemented in co- ordination with the FEDO Site-in-charge.

4.2 <u>Safety Policy</u>

Each construction firm shall have a safety policy approved by FEDO which shall deal with the following matters.

- Arrangements for training at all levels with particular attention to key workers such as scaffolders, crane operators, welders etc. whose mistakes can be especially dangerous to other workers.
- Safe methods or systems of work for hazardous operations: the workers carrying out these operations shall be involved in their preparations.





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- The duties and responsibilities of Supervisors and key workers.
- Arrangements by which information on safety and health is to be made known.
- Arrangements for setting up safety committees.
- The selection and control of sub-contractors.

4.2 <u>Safety-in-Charge</u>

FEDO site-in-charge shall ensure that the contractors at all times shall designate a supervisor possessing required experience and skill for safety and health duties. Some example of duties which shall be assigned are:-

- Provision, construction and maintenance of safety facilities like access roadways, pedestrian routes, barricades and overhead protection.
- Construction and Installation of safety signs.
- Safety provisions peculiar to each trade.
- Modification of lifting machineries such as cranes and goods hoists and lifting gears such as ropes and shackles.
- Inspection and maintenance of access facilities such as scaffolds and ladders.
- Inspection and cleaning of welfare facilities such as toilets, clothing, accommodation and canteens.
- Transmission of the relevant parts of the safety plan to each work group.
- Emergency and evacuation plans.
- Information to management, quickly about unsafe practice and defective equipments.
- Dissemination of informations on health and safety.
- Attend safety meetings and provide all informations about safety and health and also implement at work spot resolutions taken during the meetings.
- Assist FEDO Engineers/Client in conducting the mock drill.
- Maintain vigil on use of personal protective equipment by the workers.





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4.3 Site Planning and Layout

Contractor shall make work plan, access to work spot, material storage and handling, vehicle movement (preferably one way), edge protection wherever there is drop of 2 M or more, placement of construction machineries, location of trade workshop / fabrication yard/laboratory, electrical installations (switchboard etc), medical and welfare facilities, lighting etc. In consultation with FEDO Engineers/Clients prior to commencement of the work and ensure implementation of the same.

Site tidiness must be maintained during construction by cleaning up rubbish/scarp/spilled oil and grease, keeping gangway, working platforms and stairways clear of equipment and material not in immediate use, removing or hammering down any nails projecting from timber etc.

4.4 Conduct

No one shall enter any part of FEDO/Client premises including the worksite other than for the purpose of carrying out the work. All contractor personnel needing access will be required to obtain a pass issued by FEDO/Client and produce it if asked for. Contractor's personnel shall abide by all rules and regulations stipulated.

- 4.4.1 Smoking inside the premises of a working location is strictly prohibited except in the designate areas.
- 4.4.2 No source of ignition shall be taken to the licensed premises or job site unless covered by a Hot Work Permit/Clearance.
- 4.4.3 Personnel must also strictly adhere to the approved protective clothing and equipment requirements.
- 4.4.4. It is essential that good house keeping is practiced at all times to keep the work area neat and clean. No material on any of the site of work shall be so stacked or placed as to cause danger and inconvenience to any person or public.
- 4.4.5 At no time during working house or at any time on site should any of the contractor's personnel be under the influence of nor consume liquor, drugs or other intoxicating substances.
- 4.4.6 No children shall be present at work spot.

4.5 Occupational Health and Hygiene

The contractor shall be responsible for the medical welfare of its own personnel and shall provide for





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First Aid Box – The contractors shall establish their own First Aid facilities at the site and arrange for emergency transports, when required. The contractor shall provide First Aid Boxes, contents of which shall be adequate for first aid treatment to basic emergencies which occur most frequently like burns, bleeding, insect bites, bone fracture etc. The boxes and containers shall be clearly identified as First Aid boxes and kept in easily accessible places which shall be made known to every employee of that location. Contents shall be regularly checked for expiry dates.

More serious injuries involving head injuries, fractures and severe wounds etc. shall be treated by a qualified and experienced medical personal.

- The services of a Doctor shall be made available by contractor, at site on a part time basis, all major project sites.
- Arrangement for professional medical treatment/ Hospitalization.

The contractor shall ensure that his personnel are medically fit to perform their work and they shall maintain highest standards of hygiene.

- 4.5.1 All contractors who employ more than 50 workers or where the Contract Value exceeds Rs.50 corers the following facilities are to be provided by the Contractor at site at his own cost.
 - Arrangement for clean drinking water.
 - Toilet facilities
 - Canteen where tea and snacks are available
 - A creche where 10 or more women workers are having children below the age of 6 years.

4.6 <u>Sub-contractors</u>

The choice of sub-contractors if employed must be approved by FEDO Engineer responsible for work on site. Sub-contractor must comply fully with all safety rules and conditions applicable to the main Contractor.

4.7 Safety Equipment/Personal Protective Equipment

Safety equipments personal protective equipments shall be of approved make and are essential for avoiding injuries to workers on the job. A register showing stock and issue of PPE shall be maintained by the Contractor at site and must be available for inspection. The most common requirements of protective equipments are summarized below.

4.7.1 Boots & Shoes

Suitable safety footwear conforming to IS: 10667/1989 shall be worn by personnel, considering the nature of works as hazards such as:





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- risk of crushing by heavy objects
- penetration by sharp objects
- penetration by chemicals or harmful liquids
- weld spatter

Leather safety shoes/boots with steel toe caps shall be used for all heavy manual work and general construction. Shoes shall be abrasion resistant and suitable for wet and muddy conditions. Slip resistant shoes are also required for most of the works.

4.7.2 Gloves

Gloves conforming to IS: 6994 shall be used to protect the hands from the following hazards.

- risk of abrasion
- risk of cutting
- risk of tearing
- risk of burn
- risk of infection

Leather, plastic or cotton gloves coated with an impervious substance are recommended for most applications.

4.7.3 Helmets/Hard hats

All personnel shall be issued with safety helmets/hard hats conforming to IS: 2925/1984, which shall be used at all times while the personnel are on site. Safety helmets shall be checked periodically for signs of wear/cracks and damage in which case these shall be rejected and replacements issued. Sufficient number of safety helmets shall be kept at site for visitors.

4.7.4 Protective Clothing during Welding and Handling Toxic/Hazardous materials

For handling hazardous materials and welding, additional body protection is recommended. Welders must wear aprons or overalls and gloves made of flame retarding materials. Full face shields with respiratory fitters where required shall be used. Personnel handling toxic or hazardous materials must be fully protected to avoid any skin contact with these substances. This may include the wearing of impervious overalls, rubber boots, gloves, fade mask and respiratory equipment like canister masks.





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4.7.5 Goggles

All personnel shall be provided with suitable eye protection wherever there is a risk from :

- flying particles/dust ingress
- chemical splash
- radiation glare
- hot sparks or metal splatter
- harmful vapours
- sand/grit blasting

Goggles shall be single piece constructed of clear impact resistant plastic and fitted with adjustable elastic straps, Goggles used for welding shall be fitted with recommended optical filters to reduce the intensity of radiation to safe level.

4.7.6 Hearing protection

Hearing protection shall be worn by personnel involved with works in areas where noise level exceed 85 db (A noise level beyond which normal conversation becomes difficult) on a continuous or regular intermittent basis.

Protection is available in two basic types: (1) an external cup type defender which fits over the outside ear and 2) internal disposable type of earplugs usually made of compressible foam, which fits inside ear.

Whenever practicable, equipment generating high noise levels shall be located at maximum distance from any works being performed, and sound mufflers fitted.

4.7.7 Warning signs and Barriers

Care shall be taken to ensure that the Contractor has the necessary material to secure the work site and to warn the general public or other workers of dangers created by works. This shall include

- Construction warning signs
- Warning lights and signs in traffic control zone
- Barricades
- Necessary arrangements for illumination of the warning signs and barricades shall be made by the Contractor wherever the same is required for safety reasons.

4.7.8 Respiratoryprotection

Respiratory equipment, whether static or bottled type, or self-contained breathing apparatus, shall only be worn by trained personnel. Self-contained breathing





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apparatus shall be used in emergency situations, whilst scheduled works shall utilize the static bottled-type. All equipments shall be thoroughly checked prior to use to ensure:

- cylinders are full and gauges function correctly
- all connections are tight
- face masks show no sign of possible leakage
- equipment to be used for tank entry must be as detailed in the Tank cleaning Manual

4.7.9 Safety Belt/Harnesses

Safety belts/harnesses conforming to IS: 3521-1989 shall be worn by all people working at a height greater than 3 mts above ground level, where safe working platforms with suitable railing, toe board etc. are neither available, nor practical.

4.8 Earth Excavation

All safety precautions as per IS: 3764 – 1992 shall be followed while carrying out excavation. In case of excavation by blasting or drilling operations Safety precautions stipulated in IS: 4081-1985 shall be adhered to.

- Shoring shall be provided to protect the sides of excavation against collapse. Proper slopes & shuttering shall be provided where excavation is deeper than 1.5 M
- ii. Barrier/fence shall be provided for preventing people from slipping into the pit. If the pit is in vehicular driveway additionally a prominent board shall be put up showing "Excavation in Progress"
- iii. Pumping out of accumulated water from pit is to be done at regular intervals.
 - Run-away water shall be prevented from entering the excavated areas as such water can cause erosion of soil and sudden collapse of earth.
- iv. If the excavation is carried out of without shoring necessary angle of repose to be maintained at all times.
- v. No labour shall be allowed to sleep or take rest inside the pit.
- vi. Excavated earth shall be stacked away from cutting edge to avoid collapse of trench and sliding of heaped earth in to trench.
- vii. Contractor shall ensure that the excavation does not damage any existing underground cables, pipelines, foundation of adjoining buildings or structures etc. Wherever possible excavation shall not be so close and deep as to undermine safety of any adjoining building or structure.





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- viii. Before working/ entering inside an existing excavated pit it has to be ensured that no toxic gases are present which can cause disaster. The contractor also has to ensure that the underground water present in the pit is not acidic in nature due to industrial effluents.
- ix. Adequate access to an escape from the trench or pit must be provided at all times. This may be by installing and securing ladders at regular intervals or by stepping the edge of excavation. Crossover shall be provided by the contractor over excavated trench at suitable interval for movement of workers.

4.9 Piling and other Deep foundations

Safety precautions as stipulated in IS: 5121-1961 (Safety Code for Piling and Deep foundations) shall be adhered to while carrying our piling and other deep foundations. There are certain hazards which are common to all types of piling and the following precautions are necessary.

- Piling Machine Operators shale be over 18 years of age and properly trained.
- Prior to piling all underground services shall be located and made safe.
- There shall be a firm level base for the crane or crane mats shall be provided.
- Protective equipments like safety helmets, ear and eye protection shall be used by the workers.
- All cranes, lifting appliances and lifting gear must have appropriate certificates of testing and thoroughly examined.
- Particular attention shall be provided to the risk of damage to lifting gear from sharp edges.
- Cranes used for lifting or lowering workers must be fitted with a dead man's handle and lowering shall be done under power.
- Piling contractors shall submit a written statement to FEDO's Site-incharge, setting out the precautions relevant to the type of piling they are to employ.
- Induction training and informations shall be arranged by the Contractor.

4.10 Working in basement/underground tank

- i. Man entry into the underground areas is allowed only after specific approval from FEDO's Engineer in charge also, proper exist shall be provided for emergency escape by way if easily accessible ladders etc.
- ii. Air circulation must be there inside underground basement etc. Hot work in such places shall be taken up only after ensuring that ample supply of fresh air is available using additional blowers etc.





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- iii. People shall be allowed entry in the underground spaces only after ensuring that no toxic gases are present inside. Purging of gases may be done by filling the U/G tank with water. No hot work is permitted unless the explosimeter reading is within acceptable limit and specific approval from FEDO's Engineer-in-charge obtained.
- iv. Whenever workmen are allowed to enter a vessel or U/G tank or confined space, it is necessary to keep minimum two persons (alert and trained) at the manhole or entry point holding the other end of the rope fitted with safety belt of the person working inside so as to enable pulling out he person working inside in case of emergency.
- v. Proper communication system and watch between people shall be kept.

4.11 Demolition

All safety precautions as per IS: 4130-1991 (Safety code for demolition of buildings) shall be followed while undertaking demolition jobs. Demolition must be supervised by persons with thorough knowledge not only of demolition process but also of the principles of building construction. First, a survey of the physical characteristics and design of the building to be demolished must be carried out in order to choose a safe method of work.

Then a demolition action plan shall be submitted by the Contractor for approval before execution. Demolition is an inherently dangerous process and every one at site must wear protective equipments including helmet, gloves, safety footwear etc. as necessary and decided by FEDO's Site-in- charge.

Before demolition begins, all services to the structure or building must be disconnected. Arrangements must be made to keep the unwanted persons as far away as possible from the site and wherever possible a fence not less than 2 M height shall be erected around it.

4.12 Working at Height

4.12.1 <u>Safety Harness</u>

All people working at heights more than 3 mts. must use safety harness. People working at lesser heights but exposed to greater risk (by way of material etc. lying one ground) must also use it.





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4.12.2 Using ladder

Ladder used shall be of standard material like wooden/steel and be sufficiently strong conforming to IS:3696-1991 (Part 2). It shall be secured at top and bottom and in addition one person should be present at the ground to hold the ladder as a second check. If the ladder is used for carrying material as well, suitable foot holds and hand holds shall be provided on the ladder. The slope of the ladder shall not be too steep or flat (the ladder shall be given an inclination not steeper than 1 to 4 ie. 1 horizontal to 4 vertical) to cause slipping or falling off and it shall rest on firm surface. No portable single ladder shall be over 10 M in lengths, while the width between the side rails in ring ladder shall in no case be less than 30 cms for ladder up to and including 3 mts. in length. For longer ladders this width should be increased by atleast by 6 mm for each additional 30 cms of length, Uniform step spacing shall not exceed 15 cms. Rung of the ladder shall not be used for support or to tie, stiles or side members are meant for this.

4.12.3 Scaffolding

Suitable scaffolding conforming to IS:3896 (PART-1) shall be provided for workmen for all works that cannot be safety done from the ground or from solid construction except such short period of work, as can be done safety from ladders. The height above which scaffolding is mandatory is 2 mts. Scaffolding shall be of good quality Bamboo or steel tubular structure conforming to IS: 4014 (Part-I and II). Scaffolds shall be designed for their maximum load and with safety factor of atleast 4 or as prescribed by the Site- incharge. Scaffolds shall be provided with safe means or access, such as stairs, ladders or ramps. Joints in the scaffolds shall be tied up and clamped properly to avoid any slippage. Scaffolding or staging more than 30cm above ground or suspended from an overhead support shall have guard rails properly attached, bolted and braced atleast 1 M high above platform and extending along the entire length of the outside with only such openings as may be necessary for delivery of materials. Scaffolding shall be supported at different heights. Safety belt must be used while working on the scaffolding. Scaffolding shall be physically checked for load carrying capacity occasionally.

4.12.4 Working Platform

Wherever possible, all works to be done at a height greater than 2 mts. above ground level, must be performed from a properly constructed and maintained working platform. Safe means of access shall be provided to all working platforms. Working platforms, gangways and stairways shall be so constructed that they shall not sag unduly or unequally. Every opening in a working platform shall be provided with suitable beams to prevent the fall of persons or materials. The working platform shall be:





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- closely boarded.
- Atleast 70 cm wide if used only as a footing only: atleast 80 cm wide if used also for stacking material; and atleast 1.1 mts, if used for the support of a trestie platform.
- Provided with foe-boards of minimum 0.15 mts. in height.
- Provided with hand rails not greater than 0.85 mts. above toe-board.
- Constructed as close to the structure or building as possible.

4.12.5 Working on roof

People working on roof shall be properly protected by providing temporary railing/ hand rails/safety harness. Helmets shall be used by workers working underneath. Care shall be taken to prevent falling of material from top to adjoining area. In slant roofs more than 10° safety belt shall be used and belt end fastened properly to a fixed object. W orkmen shall be not allowed to work on slippery roofs.

Fragile materials such as wired glass, corrugated plastic sheeting and unreinforced insulating slabs etc,. shall be identified and necessary precautions taken while working on them. People working on fragile roof shall be properly protected by providing two Crawling Boards or Roof ladders so that one is available to stand on while the other is being moved. Crawling Boards shall have cross batons atleast 32 MM thick and not more than 380 MM apart and shall be secured in position.

Prominent working notices shall be displayed at the approaches to fragile roofs.

4.12.6 Working on A/G Tanks

In addition to safety harness which is a common precaution for working at heights, no workmen shall be allowed to work with loose cloths, chappal or loose shoes. The temporary work platform/trolley with railing generally used for shell plates welding at a height shall be checked for its strength to hold and carry welder and fitter. People working below must wear helmet. Safety shoes shall be used by the workmen to protect against welding splatter, metal pieces etc. Earthing of work piece must be provided through an earthing cable. Only tested chain blocks, ropes and chains shall be allowed to be used for lifting steel plates, appurtenances, other equipments on top of tank.





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4.13 Access to site

Free access to site shall be provided with clear roads, passage, gangways, staircase and scaffolding etc. Access to work-site shall be leveled, open and free from any obstructions like construction material or scrap/waste. Any pit or ditch shall be covered. Sufficient lighting at night shall be provided. Scrap and debris generated out of construction work shall be removed/disposed off at a regular interval as directed. Emergency exist shall be provided in case of blockade of primary exit.

4.14 Hot works

All fire precautions as stipulated in IS: 3016 (code of practice for fire precautions in welding and cutting operations) shall be followed while welding/gas cutting. Fire existiguishers, sand buckets, water and gunny bags shall be provided when hot work is in progress. Gas cylinders used for gas cutting and welding shall

- be of approved make
- be stored upright and be kept away from hot work and care shall be taken to prevent heating of gas cylinders.
- Gas cylinder valves shall always be checked and shall be closed when not in use.
- be stored in a well ventilated area
- be fitted with safety caps when not in use
- Not be lifted by nozzle and rolled

All gas and oxygen regulators shall be fitted with Flashback arrestors, being non-return valves designed to prevent an explosive mix developing in cylinder.

Checking for leaks shall be by means of soapy liquid applied to each joint and under no circumstances shall a naked flame be applied to any part of the cylinder.

When working at a height, do not place cylinders directly beneath the working area, as molten metal may fall on to the hoses, causing leaks and possible igniting the gases.

During electric arc welding process, very high ultra violet radiation is generated. Suitable eye protection must be worn by the welder and any person working in close proximity, in order to prevent permanent damage to the eyes. When not in use, electricity to the holder and electrode shall be turned of.

Hose shall be in good condition, properly clamped as per specifications. Welding cable shall have proper insulation with minimum number of joints.





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All equipments shall be properly earthed, and cables properly insulated and connected.

4.15 General safety precautions in electricity

Safety precautions as stipulated in IS:5216:1982 shall be adhered to, while carrying out electrical works. Contractor shall ensure the following:

- 1. Only authorized persons shall carry out operation and maintenance of electrical systems.
- Work permit and isolation of the electrical system before taking up the work must be ensured.
- 3. Proper protective equipments shall be used.
- 4. Check for defective cables, loose joints in conduits, damaged fuse boxes, loose pins, faulty sockets, and defective earth wire.
- 5. Do not overload electrical equipment. Do not fit make shift fuse wire.
- 6. Use right type of tools for the jobs.
- 7. After maintenance of flameproof fittings, ensure that the fittings meet requirements of flameproof standards.
- 8. Power supply cable shall be laid normally underground from source to the work place whether permanent or temporary.
- 9. Jointing of cable shall always be made using proper junction box and flameproof junction box when in hazardous areas even in case of temporary connections.
- 10. All equipments LT or HT which are likely to cause hazard shall be turned off and segregated. All base terminals etc, shall be insulated. Rubber mats shall be used for LT/HT switch room, where applicable.
- 11. All electrical equipments like wires, switch board etc. shall be protected against rains or leaking water lines etc. in wet condition switches shall not be operated until it is dried up properly. Switches, starters shall be placed well above ground level.
- 12. Proper earthing shall be provided for all electrical items and effectiveness of earthing shall be checked from time to time]
- 13. Electrical items shall be handled after isolation and care shall be taken to identify and replace damaged electrical items. Guard wire shall be provided for A/G HT wires.
- 14. Ensure all fuses are of good quality and conform to correct ratings. Use MCB's as far as possible.
- 15. Electrical maintenance workmen working around a wet area near a fuse box must use wooden platform with rubber mat, insulated tools and rubber boots.
- 16. All electrical installation including incomer line, temporary distribution board, electric motor and machine must be installed as per IE Rules with proper earthing and must be inspected and certified by a licensed electrician/authority at periodic intervals.





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4.1.6 House keeping

- Arrange all machinery such as welding machine, generators, cutting machine, etc. in such a way that fire risk equipments are segregated and protected.
- II) Check the machines at periodic intervals.
- III) Do not accumulate unwanted material near the machines, which may cause fire hazards.
- IV) Storage place shall have proper ventilation.

4.17 <u>Safety In Radiography Works</u>

Planning and procedure for radiography initially shall be formulated by Contractors and submitted to proper authority. Procedure shall be thoroughly discussed by all related persons for familiarization.

All radiation equipment and radioactive materials shall be stored, handled, transported or disposed off so that no person receives unnecessary dose of radiation.

Shield ability of the radioactive materials container shall be inspected every 6 months.

Warning signs and posters used internationally shall be displayed.

Radiography shall be performed under the direction of radioactive Supervisors / Officer responsible for this work.

All workers shall have extensive experience/knowledge of the work such as radiation procedure, operation of radiation apparatus and effects of radiation on the body.

The following spaces or areas shall be classified as restricted areas.

- a) Storage place of radioactive materials
- b) Any area where the radiation exists at levels such that large portion of the body could receive a dose in excess of 30 milligram per week.
- c) Emergency storage area for radiation apparatus or radioactive material capsules.

Warning signs, labels and fence shall be provided for restricted area to prevent trespassing.





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The area covered within a radius of 5 Mts. from the radiation working spot or location and subject to a dose of radiation in any one hour in excess of 50 milligrams shall be called the radiation area and trespassing in the area shall be strictly prohibited.

All workers entering a restricted area shall wear film badges sensitive to radiation. All workers who could receive a dose of radiation in excess of 100 milligrams per day shall wear a pocket dosimeter and the dose of radiation received shall be recorded everyday. The dose of radiation shall be checked by the supervisor for each radiation exposure when the dose of radiation exceeds 100 milligrams.

A Supervisor shall stand-by and suitable alternative such as shortening the radiation time, reinforcing the shield plate etc. shall be arranged.

During radiation work dose of radiation at the boundary shall be measured and recorded.

The radiography Supervisor shall measure and record the surface dose rate of restricted area every day as under.

- a) Date of measurement
- b) Measuring method
- c) Description and capacity of apparatus
- d) Measured condition
- e) Results of measurement
- f) Name of measurement
- g) Any action taken

Radioactive materials shall be stored separately from other material or equipments. The storage place shall be 10 cm or more above the ground and locked to prevent accidents. Radioactive materials shall be stored in a case made of lead of ample thickness with a lock on the exterior surface of the case. The description of materials, quantity and danger sign shall be distinctly visible.





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4.18 <u>Hazardous Zones</u>

Hazardous (flammable atmosphere) zones are classified as zone-0, zone-1 and zone-11. All other areas are unclassified but not necessarily non- hazardous. In these areas, safety precautions must be observed in order to eliminate risk of explosion. Zone-0 is defined as the vapour space in and directly around product storage tanks. Zone-1 is defined as an area where vapours may be expected at all times. For zone-11, flammable vapours may be expected to be present only when a failure to equipment or plant has occurred. Unclassified area cannot be assumed to be always non-hazardous, therefore must still be checked prior to issue of work permits. Following precautions shall be taken while working in hazardous areas.

4.18.1 Non-sparking equipment

Sparks can be produced from electrical tools / devices, and where two surfaces collide. In order to avoid risk of sparking, only tools approved for use in hazardous zone-1 shall be used. The condition of all equipments used within hazardous zones shall be checked by FEDO'S Site Engineer.

Where chipping or scraping is necessary in a hazardous area, several precautions shall be taken such as

- the surface being chipped or scraped shall be kept moist with water at all times.
- air driven jack hammers may be used where atmosphere has been certified to be safe and the impacting surfaces must be submerged in water.

4.18.2 <u>Workers</u>

Workers are to be checked for match boxes, lighters and other spark producing items. This shall be taken into storage with security at the gate or office.

4.18.3 Safety checks

In all cases where work is to be carried out within hazardous zones FEDO'S engineer/Client Safety Engineer must check the area using an explosimeter for the presence of flammable vapour. The explosimeter shall be verified before each use, for its smooth functioning. Should there be any indication of flammable vapours, the work permit must not be issued. Further steps will then be taken to reduce the vapour content of the surrounding atmosphere and the flammability check repeated and only then work permit issued. Authority to commence works in hazardous zones shall be continuously supervised by FEDO'S Engineer/Clients Engineer.





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4.18.4 Fire Screen Wall

Fire screen provided to segregate hot works in a hazardous area shall be erected foolproof and following precautions shall be taken in construction.

- Members shall be made of standard size MS pipes, MS structures, strong enough to withstand the wind/dead loads. The bottom of uprights shall be properly grouted.
- Good quality G.I. Sheets free of damage and holes shall be used as screening wall. G.I. Sheets shall be properly tied up with the structure.
- The height of fire screen wall shall be decided based on the level at which hot work is carried out. Like, in case of above ground tanks fabrication by jacking up method, in operating location, a fire screen o 6 M height is sufficient whereas in the other case it is required to have a height equal to height of structure to be fabricated.

4.19 Working with machineries / Material handling equipments

Safe practices as stipulated in IS:7293-1974 shall be adhered to while working with construction machinery. Safe working space for all these equipments must be provided. Mixers, winches, cranes, bending machines etc. used shall be overhauled regularly as per manufacture's advice / maintenance schedule. Proper warning boards / signs shall be provided when machineries like cranes, hoists are being operated. Brakes, clutches etc. of winches shall be checked on regular basis. Chains, ropes, belts shall be inspected and repaired / changed as necessary.

4.19.1 Cranes

All works involving the use of crane shall be properly planned in advance and the following shall be ensured.

- the crane is capable of lifting the intended load
- the condition of the ground at the crane location is satisfactory to support the crane and load
- the rotation of the cab and, therefore the boom is not restricted-suitable matting or plates are available to protect underground services and paving
- all slings shackles, hooks etc. are of correct rating and in good condition
- cranes and lifting equipments must be inspected and ensured that they carry valid test certificate issued by an accredited testing agency
- crane hooks are to be fitted with properly functioning safety clips to prevent displacement of the sling from the hook during the lift
- driver of the crane must be watchful and must ensure before driving the vehicle either forward or reverse that no one is near the wheel of the vehicle and no one is trying to climb the vehicle while moving. Crane operators and signallers must be over the age of 18, trained and sufficiently experienced. Hand signal shall be clear and distinct and shall follow recognized code or system.
- safety practices as stipulated in IS:7293-1974 (Code of Practice for Working with Construction Machinery) shall be adhered to while working with cranes.





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- all vehicles used by the contractor shall be in worthy conditions and in conformance to the land transport requirements.
- all drivers shall hold a valid driving licence for the class of vehicle to be driven.

4.19.2 Vehicles

All vehicles used for carrying workers and construction materials must undergo predictive/preventive maintenance and daily checks. Contractor shall maintain a register for this purpose for each vehicle. All documents related to the vehicle must be submitted to for checking. Driver with proper valid license shall only be allowed to drive the vehicle. Routes shall be leveled, marked and planned. Speed limit must be specified. Wherever possible one-way system shall be followed. Head clearance must be ensured on the route of the vehicle and no vehicle shall be allowed to deviate from its route. Overloading, carrying unauthorized passengers etc. must not be allowed by the contractor.

4.19.3 Plant, Tools and Equipments

The following four basic principles apply to and govern the safe use of hand and power tools

- to choose right tool for the job
- to use only tools in good condition
- to use tools correctly and only to the purpose they were intended
- to maintain and store tools properly

Electrical tools shall be checked to ensure that the supplied voltage is comparable to the machine's design. Where required, electrical tools shall be properly earthed. High speed rotating equipments such as grinders shall be fitted with protective guards. Power tools shall never be left operating unattended. Spark arrestors shall be fitted to all equipment exhausts where a risk of combustible gases in the atmosphere exists.

The contractor shall carry out periodical inspection of plant, tools and equipment.

4.20 Health / Fire Protection against hazardous materials

Harmfulness of materials shall be identified and proper care shall be taken against fire/health hazardous e.g. against asbestos fibre / rope, sand / shot blasting, paints handling leaded container and tank, furfural liquid etc. Waste materials and consumables like woods, papers, plastic pieces etc. shall be cleared on regular basis. Petroleum products / solvents used for cleaning etc. shall be kept away from working site especially when hot work is in progress. No smoking board/signs etc. shall be used in sites where such materials are stocked.





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Paints:- Paints shall be stored in separated areas. The quantity of paint stored in actual working areas shall be as minimum as practicable. The ingestion of paint shall always be avoided. Food and drink shall not be brought, stored, prepared or consumed in areas where paints are stored, handled or used. Smoking in such areas shall be prohibited. The inhalation of paints, dusts or fumes shall always be avoided by the use of local ventilation or extraction. Where fumes or dusts are unavoidable, then suitable approved respirators or face masks shall be worn. All personnel who handle and use paints shall wear appropriate protective clothing (as a minimum gloves, eye protection and overalls). Splashes of paint on skin shall be treated promptly by copious washing with water or an approved cleaning agent. (Solvent shall not be used for personal cleaning).

5 Work Permit System

If work is to be performed in an operating location by any person other than the operating personnel of that area, a duly authorized written work permit shall be obtained by the person / agency executing the work. This is a document authorizing persons to carry out the work concerned, warning them of the possible hazards and spelling out precautions needed for the job to be done safely. The contractor shall be fully aware of the details of the work permit system and shall obtain the same signed by FEDO's authorized representative / Client's representative before starting the job. Based on the nature, the work shall be undertaken either under Hot work permit or Cold Work Permit. Hot work is an activity which may produce enough heat to ignite a flammable air-carbon mixture or a flammable substance. Cold work is an activity which does not produce sufficient heat to ignite a flammable air- hydrocarbon mixture or a flammable substance. The two types of permits are minimum requirement which must be fulfilled before commencing the work.

Permits and certificates are to be issued by the person with overall responsibility for the area, usually the Engineer-in-Charge of FEDO / Customer. Permits are to be kept with the site supervisor at all times.

For jobs like excavation, road/dyke cutting, electrical etc. where the work permit issuing authority may have to take clearances from other sections / personnel, the work permit must be accompanied by associated permits like, Excavation Permit, Electrical Certificate etc.

Excavation Permit

When excavation work is to be undertaken, the site must be checked by persons with thorough knowledge of underground service systems. Cables scanning using instruments will be required in areas around high voltage cables. Hazardous situations arising from sparking during excavations and stone breaking must also be considered.





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Electrical Work Permit

This is issued to ensure that an authorized representative of the Project Engineer has electrically isolated the equipment to be worked on, and has taken suitable steps to prevent inadvertent reconnection. Some points of consideration are:

- Has the electrical supply been cut off and have precautions been taken to ensure that it cannot be reconnected eg. fuses removed, notices displayed and pad locks used.

6 Accident Reporting And Classification Of Accidents

6.1 Accident Reporting

All employees must be encouraged to report any incident which has or could have caused injury, illness, damage to property, or interruption of work. The reporting of such accidents help in analyzing what went wrong and enables steps to be taken to prevent a recurrence. The accident report, forms the basis for objective investigation of the accident and will bring out essential and contributory factors leading to it. The necessary decisions then can be taken to prevent recurrence in future.

6.2 Classification of Accidents

Accidents are classified as follows and provide data for future accident investigation. The analysis of such classified accidents highlights typical locations / operations in need of immediate attention for preventing accidents.

a) Near Miss

It is a `narrow escape' where accident, major loss or injury did not occur. Such incidents must be reported locally and the working conditions leading to it must be investigated.

b) Fatality

A death resulting from work injury is covered under this category irrespective of the intervening time between injury and death.

c) Permanent total Disability

Personal injury which incapacitate a person completely and results in termination of employment.

d) Permanent partial Disability

Any injury which results in complete loss or permanent loss of use of any part of body or any permanent impairment of the function of the body.





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e) Lost Work – Day case

Any injury excepting permanent partial disability which renders the injured person unable to perform any regular job or restricted work, on any day after the day of receiving the injury.

f) Restricted work case

The injured person give up work on following the accident, which does not include all his normal duties or regular job as a result of the injury.

g) Lost work days

The number of calendar days on which the injured person was temporarily unable to work.

h) Restricted work days

The total number of calendar days from the start of restricted work, by the injured person, till he returns to his regular job.

i) Medical treatment cases

The injury requiring medical treatment under order from a physician but does not involve lost work days or restricted work days.

6.3 Reporting

Contractors are required to notify by the FEDO'S Site-in- Charge, of accidents as follows:-

Lost time injuries – immediately
First Aid injuries – within a day
Damage to plant or equipment – within a day
Fires and Miscellaneous Events – immediately

7.1 Meetings on safety

7.1 Prior to job

All new contractors must be given an induction training by FEDO's/Customer's Engineer, before start of work. A minimum requirement for induction training will be familiarization with existing rules and regulations and the hazardous of work environment, including.





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- Smoking restrictions
- Work permit procedures
- General hygiene and sanitation codes to be followed at site
- Traffic and parking regulations
- Restrictions on used of drugs and alcohol
- Allocation of pace for eating/drinking
- Restriction on movement within Company premises
- House keeping standards
- Danger and safe handling procedures for hazardous substances
- Use of safety equipments
- Hazardous of excavation operation eg. damage to underground cabling/piping
- Required action in case of fire and medical alarms
- Safety boards/notices to be provided.

7.2 <u>Site meetings</u>

For large or complex jobs, regular site meetings shall be held to review safety on the job as part of site meetings.

7.3 Extraordinary events

After any extraordinary events or accidents it is recommended that FEDO's Engineer hold a site meeting to review the incident and formulate a safety policy to prevent its recurrence.

7.4 Contractor shall have arrangement to transport his workmen, for medical attention in the event of an accident at work site.

7.5 <u>Documentation</u>

All accidents or incidents must be immediately reported and recorded in the safety book of FEDO.





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TENDER

FOR

NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES FOR FACT-CD, AMBALAMEDU ON LSTK BASIS

PART I: COMMERCIAL

SPECIAL CONDITIONS OF CONTRACT



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26.0	SUBCONTRACTOR/ VENDOR AND MANUFACTURE WARRANTIES		
27.0	DELETED		
28.0	CURRENCY OF BID AND MODE OF PAYMENT		
29.0	DELETED		



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1.0 GENERAL

- 1.1 The SPECIAL CONDITIONS OF CONTRACT shall be read in conjunction with the GENERAL CONDITIONS OF CONTRACT, SPECIFICATIONS OF WORK, DRAWINGS and any other document forming part of this CONTRACT wherever the context so requires.
- Where any portion of the GENERAL CONDITIONS OF CONTRACT is repugnant to or at variance with any other provisions of the SPECIAL CONDITIONS OF CONTRACT, then unless a different intension appears, the SPECIAL CONDITIONS OF CONTRACT shall be deemed to over-ride the provisions of GENERAL CONDITIONS OF CONTRACT and shall prevail to the extent of such repugnancy orvariations.
- In case of an irreconcilable contradiction in the Commercial Terms and Conditions/
 Technical Requirements or technical specifications between Applicable Codes &
 Standards, GENERAL CONDITIONS OF CONTRACT, SPECIAL CONDITIONS OF
 CONTRACT, and or Agreed Deviations to the extent that the two provisions cannot coexist or be read together to satisfy both or all, the following order of precedence shall
 prevail:
 - 1) Contract Agreement
 - 2) Agreed Deviations
 - 3) Technical Documents
 - 4) Special Conditions of Contract
 - 5) General Conditions of Contract
 - 6) Applicable Codes & Standards
- 1.4 The Fertilisers and Chemicals Travancore Limited (FACT) hereinafter also referred to as "OWNER" is a Government of India Public Sector undertaking involved in the manufacture and marketing of nitrogenous, phosphatic and potassic fertilizers as well as a variety of industrial chemical products. The company has presently two manufacturing units, one at FACT-CD, Ambalamedu and the other at FACT-UC, Udyoqamandal, both located in the state of Kerala.
- **1.5** FACT intends to install one number of New 10000 MT, Double Wall Double Integrity, Ammonia Storage Tank and Associated Facilities at FACT-CD, Ambalamedu.
- **1.6** FACT has assigned the Project Management Consultancy (PMC) works to its own Engineering Division The FACT Engineering and Design Organisation (herein after referred to as FEDO).



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The present NIT specifies the requirements for selection of an LSTK Contractor for supply of design, engineering, procurement, third party inspection, Civil foundation, fabrication, supply, transportation, handling, storage, erection, testing and commissioning of the new 10000 MT, double wall double integrity, ammonia storage tank and associated facilities at FACT-CD, Ambalamedu on a Lump-Sum Turnkey Basis on single point responsibility.

2.0 LOCATION OF THE PROJECT SITE

- 2.1 The FACT-CD Fertilizer Complex of FACT is located at Ambalamedu, Ernakulam District, Kerala State. The Project will be accommodated within the existing boundary wall of factory.
- 2.2 The site is connected with rail, road and inland waterways.

Village/Tehsil : Puthencruz/Kunnathunadu

Nearest Railway Station : Tripunithura - 7 km approx.

Nearest Airport : Cochin International Airport Ltd.

Nedumbassery - 35 km approx.

Nearest Waterbodies : Chitrapuzha River - 3 km approx. merges with

backwaters at Maradu.

3.0 PLANT CONFIGURATION AND CAPACITY (hereinafter referred to as PLANT)

PLANT / EQUIPMENT	Ammonia Storage Tank and Associated Facilitiesnas per scope pf work and technical specifications attached	
CAPACITY	10000 MT (Excluding dead volume and vapour space)	
NUMBERS REQUIRED	One	
DESIGN	Double wall double integrity Atmospheric storage	
TYPE OF INSULATION		
SHELL	Polyurethane Foamed in situ:	
BOTTOM	Foam glass (Imported).	
ROOF	Suspended deck of resin bonded glass wool	
TYPE OF FOUNDATION	On a raised foundation to have free circulation of air beneath the concrete base to avoid frost formation.	
MATERIAL OF CONSTRUCTION	LTCS suitable for -33 °C	



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DESIGN OVER PRESSURE	800 mm Wc g		
DESIGN VACUUM PRESSURE	-50 mm Wc g		
CORROSION ALLOWANCE	Inner Cup: 0.0 mm	Outer Shell & Roof: 1.5 mm	

Detailed scope of the BIDDER/CONTRACTOR is also given in Doc. 32686-11-PS-001-SW, Scope of Work of Part-II, Technical of the Tender and the BIDDER/CONTRACTOR shall comply with all the technical requirements specified therein.

4.0 CONTRACTOR'S OBLIGATIONS

4.1.0 General Responsibility

4.1.1 The CONTRACTOR acknowledges that this CONTRACT is a lump sum turnkey contract and CONTRACTOR'S obligation hereunder, notwithstanding anything to the contrary contained herein, is to provide OWNER with fully operational PLANT, complete in all respects under and in accordance with the provision of CONTRACT, within the stipulated time and for the purpose designated herein by OWNER, and to do, furnish and provide everything necessary in connection therewith. Time is the essence of this contract and no time overrun and cost overrun are allowed.

Without prejudice to the foregoing and except as otherwise expressly set forth in the CONTRACT as within the scope of OWNER's obligations under the CONTRACT, the CONTRACTOR shall perform or cause to be performed all WORK and services required in connection with design, engineering, supply of equipment, procurement (including, without limitation, all transportation services in connection therewith), construction, erection, start up, pre-commissioning, commissioning, testing including conducting of Performance Tests and other work and services up to the PRELIMINARY ACCEPTANCE OF PLANT by the OWNER/FEDO and in connection therewith provide all materials, equipment, machinery, tools, labour, transportation, administration and other services and items required to complete the PLANT in all respects up to the PRELIMINARY ACCEPTANCE OF PLANT and having the performance as guaranteed under the CONTRACT by the CONTRACTOR on a total, fixed price basis in accordance with this CONTRACT. The WORK shall, without prejudice to the generality of the foregoing or those enumerated in Clause 4.2.0 include but not be limited to the following:

- (a) All engineering and design services including necessary investigation required for a completely engineered PLANT including necessary documentation;
- (b) Provision of all equipment, systems, materials, processes, CONTRACTOR'S EQUIPMENT, temporary works and all other items, whether of a temporary or permanent nature including those required for the design, erection, completion commissioning, conducting of PERFORMANCE AND GUARANTEE TESTS and remedying of DEFECTS during DEFECTS LIABILITY PERIOD.
- (c) Transportation from works, port of entry and import clearance and handling services in and into India and inland transportation from the relevant points of delivery of EQUIPMENT required in connection with the completion of the PLANT/Equipment, and



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the performance of the other WORK.

- (d) Project management.
- (e) Receipt of all EQUIPMENT at SITE including stores management.
- (f) Construction infrastructure services, civil and structural construction; mechanical, electrical and instruments erection and installation services; testing and commissioning, and PERFORMANCE AND GUARANTEE TESTS before PRELIMINARY ACCEPTANCE of PLANT including all relevant applicable permits, with CONTRACTOR having responsibility for overall co-ordination of permits required by the OWNER and all training activities for OWNER's personnel.
- (g) Provision of all necessary superintendence, labour, construction fuels and construction (but not fuel, water and electricity for commissioning, testing and operating the PLANT which OWNER will provide to CONTRACTOR at no cost), chemicals, utilities, tools, supplies and other consumables and services; and
- (h) Rectification of defects during DEFECTS LIABILITY PERIOD.
- **4.1.2** CONTRACTOR shall provide services, for PLANT, in accordance with good engineering practice. CONTRACTOR shall provide services of engineers, designers, draftsmen, buyers, inspectors, expediters and other persons required for the performance of WORK pursuant to CONTRACT.
- 4.1.3 In the event that there is any item of EQUIPMENT or WORK of the type provided for in CONTRACT, which is not specifically mentioned in the specifications or drawings set out in FINAL PROPOSAL, but which is necessary (even though not mentioned in CONTRACT) for normal, safe and continuous operation of PLANT, based on mutual agreement between OWNER and CONTRACTOR, CONTRACTOR shall include such item of EQUIPMENT in the design and perform such items of WORK, for such EQUIPMENT or WORK free of cost to OWNER as if the same had been originally included in its Scope of Work/FINAL PROPOSAL.
- **4.1.4** Subject to prior consent of OWNER, CONTRACTOR may make use of the services of SUB-CONTRACTOR/VENDOR (previously approved in writing by the OWNER) in accordance with the provisions in CONTRACT provided, however, the CONTRACTOR shall remain responsible and liable for the work done by such SUB-CONTRACTOR/Vendor.
- **4.1.5** The CONTRACTOR shall be responsible for obtaining necessary approvals which are to be issued in the OWNER's name from the various statutory authorities.
- **4.1.6** The CONTRACTOR shall provide full technical assistance and follow-up to OWNER for obtaining the necessary approvals to be issued in the name of OWNER from the various statutory authorities.
- **4.1.7** The CONTRACTOR shall furnish Security Deposit / Contract Performance Bond as per the enclosed format in line with the provisions of GENERAL CONDITIONS OF THE CONTRACT.



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4.1.8 The enumeration in subsequent Clauses of SPECIAL CONDITIONS OF CONTRACT, in GENERAL CONDITIONS OF CONTRACT and other documents of CONTRACT shall not in any manner limit the general scope of obligations and responsibilities of designing, engineering, procurement, supply, construction, commissioning and proving the performance guarantees of PLANT within the scope of CONTRACT.

4.2.0 CONTRACTOR's Scope of Work

- **4.2.1** CONTRACTOR shall provide and be responsible for the tasks specified in this Clause under the following heads and conforming to requirements of PART II-TECHNICAL of the Tender.
- **4.2.2** CONTRACTOR shall study meticulously the technical documents listed below to have a clear understanding about the technical requirements for the WORK and shall comply with all requirements specified therein, also.

4.2.2.1	32686-11-PS-001-DP	PROJECT DESCRIPTION
4.2.2.2	32686-11-PS-001-DB	DESIGN BASIS
4.2.2.3	32686-11-PS-001-PH	DESIGN PHILOSOPHY-PROCESS
4.2.2.4	32686-11-PS-001-SW	SCOPE OF WORK
4.2.2.5	32686-11-PS-001-SPL	SPECIAL REQUIREMENTS OF THE PROJECT
4.2.2.6	32686-11-PS-001-PGT	PERFORMANCE GUARANTEE TEST

4.2.3 DELETED.

4.2.4 Design & Engineering

- 4.2.4.1 CONTRACTOR shall provide all design and engineering services necessary for completion of the PLANT in conformity with the CONTRACT and Good Engineering Practices and the NIT including but not limited to:
 - (a) Preparation of:
 - Project design manual which shall form the basis of PLANT design;
 - The conceptual design; and
 - The engineering and design necessary to describe and detail the PLANT and the Project.
 - (b) Provision of criteria for the detailed design by other suppliers of equipment / system / structures for incorporation into the PLANT.
 - (c) Preparation of design, engineering, drawings, plans, bill of material, schedule and estimates for the PLANT and the project and the performance by CONTRACTOR of its obligations hereunder so that the PLANT constructed and commissioned by the CONTRACTOR is capable of meeting the performance guarantees and will be such as could be legally, safely and reliably placed in commercial operation by the OWNER.
 - (d) CONTRACTOR shall perform the design and engineering for PLANT so that when



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constructed and commissioned, PLANT shall be capable of meeting the guarantees with respect to quality and quantity of products, consumption of raw materials and utilities (in terms of WORKS COST for PLANT), and Pollution Level as guaranteed

under CONTRACT and shall be reliable and safe and operable in accordance with the sound engineering practice. CONTRACTOR shall ensure design capacity of all sections of PLANT in accordance with CONTRACTOR's experience and expertise for obtaining a full throughput under varying conditions within the limits specified in CONTRACT. PLANT shall be designed so as to be capable of producing at full plant capacity when operated as specified in FINAL PROPOSAL CONTRACTOR shall review the basic design conditions, including soil data, and other conditions furnished by OWNER/FEDO in NIT. If CONTRACTOR observes any inconsistency or insufficiency in these data, CONTRACTOR shall bring to the notice of OWNER the same, before its use.

4.2.5 Review and Analysis

4.2.5.1 CONTRACTOR shall review, analyse and optimise the various systems and power network of PLANT. CONTRACTOR shall allow Engineer-In-Charge to review WORK under CONTRACT including the optimisation of the power network for PLANT. Subject to Clause 6 – CHANGE IN WORK/CHANGE ORDER CONTRACTOR shall incorporate in its design and engineering such additions and changes suggested by Engineer-In-Charge as long as these do not conflict with the responsibility of CONTRACTOR in fulfilling its guarantees under CONTRACT. CONTRACTOR shall not use any technical data, drawing, or document given by OWNER/FEDO except for purpose of CONTRACT.

4.2.6 Codes and Standards

4.2.6.1 The engineering shall be performed and PLANT/ EQUIPMENT shall be manufactured and supplied according to acceptable international standards, as specified in the Technical Specification/FINAL PROPOSAL, meeting safety and other requirements of various national/international Codes and Regulations being in force as on submission of the FINAL PROPOSAL. The design of PLANT shall be based on the criteria enumerated in CONTRACT. However, it shall be CONTRACTOR's responsibility to follow all Indian Rules and Regulations as applicable.

CONTRACTOR shall comply with and shall cause the WORK and all components thereof (including, without limitation, the design and engineering of the PLANT) to comply with all APPLICABLE LAWS and APPLICABLE PERMITS as they may be in effect at the time of CONTRACTOR's performance under the CONTRACT.

The CONTRACTOR shall ensure that all actions on its behalf in connection with the WORKS shall be in compliance with applicable laws of India. The CONTRACTOR agrees to take all reasonable steps to ensure that Persons appointed by it in connection with the WORK shall comply with the applicable laws/regulations/guidelines and obligations.

4.2.7 Drawings and Documents



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4.2.7.1 CONTRACTOR shall prepare or secure and furnish to OWNER/FEDO all data, specifications, drawings, plans and other documents as required/used for WORK as specified in Technical Specifications.

4.2.8 OWNER's Review

4.2.8.1 CONTRACTOR shall associate FEDO/PROJECT MANAGER, with WORK as carried out by CONTRACTOR and SUB-CONTRACTOR / Vendor. FEDO/PROJECT MANAGER shall review all documents and give their comments to CONTRACTOR within 14 (fourteen) days from the date of receipt of the same. If the comment, if any, is not communicated by OWNER/FEDO to CONTRACTOR within 14 (fourteen) days, document shall be deemed to be reviewed by OWNER/FEDO. Review as aforesaid by OWNER/FEDO and furnishing of comments by OWNER/FEDO or the failure of OWNER/FEDO to review or comment as aforesaid shall not relieve CONTRACTOR in any manner of its obligations including performance guarantees under this CONTRACT.

4.2.9 Procurement Services

- 4.2.9.1 As part of the WORK, CONTRACTOR shall procure and pay for, in CONTRACTOR's name as an independent contractor and not as agent for OWNER/FEDO, all CONTRACTOR's and SUB-CONTRACTOR'S labour, materials, equipment, supplies, soil, gravel and similar materials and manufacturing, fabrication and related services (whether on or off the PLANT Site) for construction of and incorporation in the PLANT or which are otherwise required for completion of the WORK in accordance with the Specification and the CONTRACT and are not explicitly specified to be furnished by OWNER/FEDO pursuant to the terms and provisions of the CONTRACT including FINAL PROPOSAL.
- 4.2.9.2 CONTRACTOR shall procure and provide all EQUIPMENT required for PLANT. EQUIPMENT procured shall be according to specifications as set forth in the CONTRACT, proven record of performance and with suitable delivery time to meet the MECHANICAL COMPLETION as given by CONTRACTOR. EQUIPMENT shall be procured from the vendor list agreed between CONTRACTOR and OWNER/FEDO.

In connection with its procurement work, CONTRACTOR shall be responsible for the shipping, transportation and delivery of all items fabricated, manufactured, constructed or procured as set forth in the FINAL PROPOSAL and the CONTRACT. All such items and equipment, materials and supplies to be provided by the CONTRACTOR pursuant to the CONTRACT shall be new and of required quality, free from improper workmanship or defects and properly warranted or guaranteed in accordance with the CONTRACT. Any apparent omission or error in the equipment specifications will be corrected by the CONTRACTOR to the extent required by the CONTRACT including FINAL PROPOSAL.

4.2.9.3 CONTRACTOR shall arrange Third Party Inspection and quality certification of EQUIPMENT, through approved Third Party Inspection Agencies (TPIA), Lloyds/BV/TUV/ IR CLASS. The cost



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of TPIA shall be included in the CONTRACTOR's Scope.

4.2.10 Equipment

- 4.2.10.1 CONTRACTOR agrees that EQUIPMENT procured shall be strictly in accordance with the specifications as provided, however, that any apparent omission or error in the specifications will be corrected by CONTRACTOR if it is necessary for the functioning of EQUIPMENT. CONTRACTOR shall inform OWNER/FEDO for such omission or error or ambiguity in the specifications and corrections made for the same.
- 4.2.10.2 Completeness of EQUIPMENT shall be the responsibility of CONTRACTOR. Any fittings, accessories, etc. which may not be specifically mentioned in Technical Specifications/FINAL PROPOSAL but which is required for the satisfactory functioning of EQUIPMENT and realization of PERFORMANCE GUARANTEES shall be provided by CONTRACTOR without any extra cost.
- 4.2.10.3 CONTRACTOR shall ensure that the modern practices in the manufacture of high grade EQUIPMENT are followed notwithstanding any omission in the specifications.
- 4.2.10.4 The supplies including fittings, accessories, etc. shall be in strict compliance to the specifications/codes/standards. Components for which no relevant standards exist, the same shall be designed and manufactured as per good engineering practices.
- 4.2.10.5 The true intent and meaning of this Clause is that CONTRACTOR shall in all respects design, engineer, ensure quality of manufacture and supply EQUIPMENT in a thorough workman like manner, within prescribed time and in accordance with good engineering practice in order to enable proper operation of EQUIPMENT and PLANT.
- 4.2.10.6 CONTRACTOR shall furnish drawings and documents of EQUIPMENT/PLANT as described under Clause 4.2.7. These documents shall include but not limited to technical documents, final drawings, preservation instructions, operation and maintenance manuals, test certificates, spare parts catalogues, etc. in a bound book for all rotating EQUIPMENT and in a folder for other EQUIPMENT, before despatch of EQUIPMENT under intimation to OWNER.
- 4.2.10.7 The documents, required for statutory approvals once submitted during construction period by CONTRACTOR shall be firm and final and not subject to subsequent changes. CONTRACTOR shall be responsible for any payment of penalty as imposed by the Statutory Agencies consequent to furnishing of the incorrectdata/drawings.
- 4.2.10.8 All dimensions and weights shall be in metric system.
- 4.2.10.9 EQUIPMENT/PLANT to be supplied and WORK to be carried out under CONTRACT shall conform to and comply with the provision of relevant Regulations/Acts (or both) as may be applicable in the State of Kerala and in India to the type of EQUIPMENT/WORK carried out and necessary certificates shall be furnished.



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- 4.2.10.10 CONTRACTOR shall provide cross sectional drawings wherever applicable to identify the spare part numbers and their location, e.g. the size of bearings/ seals, their make and number shall be furnished.
- 4.2.10.11 EQUIPMENT supplied under CONTRACT shall conform to the standards as specified in Clause 4.2.7.1.
- 4.2.10.12 CONTRACTOR shall furnish unpriced copy of Purchase Orders for equipments and major items as per the list to be mutually agreed (Priced copy of Purchase Orders as required by the statutory authority) together with spares and special maintenance tools covering accurately all terms and conditions such as specifications requirements for quality, inspection, and test, warranties and guarantees, erection and commissioning assistance by vendor, delivery schedule, packing, transportation and insurance, anddocumentation.
- 4.2.10.13 CONTRACTOR shall arrange & furnish/provide to OWNER,
 - a) Lubrication schedule from VENDOR,
 - Mechanical specifications and equipment data sheets for review by OWNER/FEDO for ALL EQUIPMENTS before manufacturing is started,
 - c) Shop fabrication drawings from Vendor,
 - d) Characteristic curves for pumps and compressors, etc. from Vendor,
 - e) Certified drawings including civil scope drawing and loading data, pertinent bulletin, installation, operation and maintenance manuals and test certificates received from Vendor,
 - f) Final revised vendor's drawings including one reproducible, as described in Technical Specifications, before PRELIMINARY ACCEPTANCE. Any changes necessary during commissioning period can be incorporated in the As-Built drawings and will be submitted after commissioning as per the mutually agreed schedule.
- 4.2.10.14 CONTRACTOR shall provide services of Vendor's specialist for installation and commissioning of EQUIPMENT whenever necessary.
- 4.2.10.15 CONTRACTOR shall be responsible for the accuracy and completeness of PURCHASE ORDER. Any comments by FEDO/PROJECT MANAGER shall not relieve CONTRACTOR of such responsibility.

4.2.11 Inspection, Expediting & Testing

- 4.2.11.1 CONTRACTOR shall establish an inspection and expediting system and use its services for obtaining EQUIPMENT which conforms to the required technical and quality specifications and delivery according to PURCHASE ORDER. CONTRACTOR shall send copies of expediting and inspection reports regularly to OWNER/FEDO.
- 4.2.11.2 OWNER/FEDO or their INSPECTOR shall have the right to inspect and/or to test



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EQUIPMENT to check its conformity to the specifications. CONTRACTOR shall specify the inspections and tests to be carried out giving reference of applicable codes/standards and the location of inspection/test to OWNER/FEDO. OWNER/FEDO shall notify CONTRACTOR in writing the name of INSPECTOR retained for this purpose.

- 4.2.11.3 The inspection and tests may be conducted at the premises of CONTRACTOR or SUB-CONTRACTOR/Vendor before delivery and/or at SITE. All reasonable facilities and assistance including access to all drawings and production data shall be furnished to INSPECTOR at no charge to OWNER/FEDO.
- 4.2.11.4 Should any inspected or tested EQUIPMENT fail to conform to the specifications, OWNER/FEDO may reject it and CONTRACTOR shall either replace the rejected EQUIPMENT or make all alterations necessary to meet specification requirements free of cost.
- 4.2.11.5 OWNER'S/FEDO'S right to inspect and wherever necessary, comment about EQUIPMENT after its arrival at SITE or its participation in tests in respect of any EQUIPMENT shall in no way be limited or waived by reason of EQUIPMENT having previously been inspected, tested and passed by OWNER/FEDO or INSPECTOR/Representative prior to its shipment/despatch.
- 4.2.11.6 INSPECTOR shall follow the progress of the manufacture of EQUIPMENT under CONTRACT to ensure that the requirements outlined in CONTRACT are not being deviated from with respect to Schedule and Quality.
- 4.2.11.7 CONTRACTOR shall allow INSPECTOR to visit, during working hours, the workshops relevant to execution of CONTRACT during the contractual period and INSPECTOR will have the right to inspect EQUIPMENT at all stages of manufacture right from identification of material up to its shipment/despatch, to the extent that the delivery schedule shall not be delayed, with prior notice to CONTRACTOR in writing.
- 4.2.11.8 In order to enable INSPECTOR to obtain entry visa in time, CONTRACTOR shall notify OWNER two months before assembly, testing and packing of main EQUIPMENT and if requested assist INSPECTOR in getting visa in the shortest possible time.
- 4.2.11.9 CONTRACTOR shall place at the disposal of INSPECTOR free of charge all tools, instruments and other apparatus necessary for the inspection and/or testing of EQUIPMENT. INSPECTOR is entitled to prohibit the use and despatch of EQUIPMENT that has failed to comply with the characteristics/specifications of EQUIPMENT during test and inspection.
- 4.2.11.10 CONTRACTOR shall ensure that the permission for inspection/test is granted by its SUB-CONTRACTOR/VENDOR.
- 4.2.11.11 In respect of the inspection, CONTRACTOR shall advise in writing of any delay in the programme at the earliest possible date, describing in detail what has caused the delay and the proposed corrective action.



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4.2.11.12 All tests and trials in general of EQUIPMENT shall be witnessed by INSPECTOR. Therefore, CONTRACTOR shall confirm to OWNER/FEDO by E-mail/fax about the exact date of inspection at least 15 DAYS in advance. CONTRACTOR shall specify the items and quantities ready for testing and indicate whether a Preliminary or Final Test is to be carried out.

- 4.2.11.13 On receipt of this notice, if OWNER/FEDO decides to waive the right to witness the test, information shall be given to CONTRACTOR within 15 DAYS of receipt of the notice from CONTRACTOR and CONTRACTOR then shall have right to proceed with the inspection.
- 4.2.11.14 Any and all expenses incurred in connection with tests, preparation of reports and analysis made by qualified laboratories, necessary technical documents, testing documents and drawings shall be at CONTRACTOR's cost. Technical documents shall include the references and numbers of the standard used in the fabrication/construction and, wherever deemed practical by INSPECTOR. INSPECTOR shall attach importance to the views given by CONTRACTOR or its SUB-CONTRACTOR/VENDOR. Any and all expenses for living, lodging and airfare/rail fare incurred in connection with INSPECTOR shall be borne by OWNER.
- 4.2.11.15 Nothing in Clause 4.2.11.2 to 4.2.11.14 shall in any way relieve CONTRACTOR from any warranty or other obligations under this CONTRACT. Not performing or failing to perform the inspection by OWNER/FEDO hereunder shall not be a waiver of any of CONTRACTOR's obligations hereunder nor it be construed as an approval or acceptance of any of the WORK hereunder nor it shall absolve the CONTRACTOR in any way or manner of its liabilities, responsibilities and obligations under the CONTRACT.
- 4.2.11.16 Arrangements for all inspections and Site Appraisal required by Statutory Authorities (local) and as specified in Technical Specifications/FINAL PROPOSAL shall be made by CONTRACTOR. Certain category of EQUIPMENT/piping fall under the jurisdiction of Indian Boiler Regulations (IBR), irrespective of the fact whether these are proprietary in nature or not, certification from an internationally recognised agency approved by IBR is considered necessary to enable local IBR authorities to allow their installation and operation. In such cases, inspection and certification from such authorities will also have to be arranged by CONTRACTOR. CONTRACTOR shall also submit, as may be required by IBR authorities, necessary design calculations from respective fabricators and/or manufacturers of such EQUIPMENT.

4.2.12 Rejections, Removal of Rejected EQUIPMENT and Replacement

- 4.2.12.1 Preliminary inspection at SUB-CONTRACTOR's / vendor's works by INSPECTOR shall not prejudice OWNER/FEDO for commenting on EQUIPMENT including its specifications on final inspection at SITE or claim under warranty provisions.
- 4.2.12.2 If EQUIPMENT is not of specification or fail to perform specified duties, OWNER/FEDO shall be entitled to reject EQUIPMENT or part thereof and ask for modification, repair or free replacement within reasonable time subject to the relevant provisions in the CONTRACT.
- 4.2.12.3 In the event of such rejection, OWNER shall be entitled to use EQUIPMENT in a reasonable and



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proper manner for a time reasonably sufficient to enable it to obtain replacement from contractor. After free replacement of such rejected EQUIPMENT by CONTRACTOR, the rejected equipment shall become the property of CONTRACTOR.

- 4.2.12.4 Nothing in this Clause shall be deemed to deprive OWNER/FEDO and/or affect any of its rights under CONTRACT which it may otherwise have in respect of such defects or deficiencies or in any way relieve CONTRACTOR of its obligation underCONTRACT.
- 4.2.12.5 EQUIPMENT rejected by OWNER/FEDO shall be removed by CONTRACTOR, within reasonable time, at its own cost after replacement of the said EQUIPMENT. OWNER/FEDO shall in no way be responsible for any deterioration or damage to rejected EQUIPMENT under any circumstances whatsoever.
- 4.2.12.6 In case, the rejected EQUIPMENT is to be taken out of OWNER's premises for repair, OWNER/FEDO shall have the right to withhold the payment for such cost of equipment to the extent of payment made by Owner towards the equipment until the equipment is returned / replaced.

4.2.13 Packing

- 4.2.13.1 CONTRACTOR shall ensure that packing of EQUIPMENT is as required to prevent their damage or deterioration during transit to its final destination.
- 4.2.13.2 The packing, markings and documentation within and outside the packages shall comply strictly with the provisions of CONTRACT.
- 4.2.13.3 CONTRACTOR shall be responsible for any eventual consequence occurred to EQUIPMENT due to improper packing of the same.

4.2.14 Delivery and Documents

- 4.2.14.1 Delivery schedule shall include time for submission of documents/drawings for review/approval, incorporation of comments, if any, and final review of drawings by FEDO/PROJECT MANAGER. Within 14 (fourteen) DAYs after receipt by FEDO/PROJECT MANAGER of any document requiring OWNER's/FEDO's review, PROJECT MANAGER shall either return one copy thereof to CONTRACTOR as it is, if PROJECT MANAGER has no comments or with its comments and reasons thereof. If PROJECT MANAGER fails to return the document/drawing within 14 (fourteen) DAYs, the said document/drawing shall be deemed to have been reviewed by OWNER/FEDO.
- 4.2.14.2 Special care shall be taken by CONTRACTOR to furnish Manufacturer s Test Certificates, material of construction, make, type, pressure ratings wherever applicable and included in the scope of supply of EQUIPMENT.
- 4.2.14.3 In case of delayed delivery beyond the stipulated delivery period, for reasons not attributable to OWNER/FEDO, FORCE MAJEURE and suspension of WORK by OWNER/FEDO, even though normal extension of GUARANTEED COMPLETION DATE time



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is allowed by OWNER/FEDO, all extra costs on account of changes of statutory regulations/Acts or increase in price on any other account including price variation clause, shall not apply to CONTRACT PRICE and the same shall be borne by CONTRACTOR.

4.2.15 Despatch, Transportation/Shipping

- 4.2.15.1 CONTRACTOR shall be responsible for despatch of EQUIPMENT by sea/ rail/ road/air after proper packing and protection. The consignment shall be despatched after inspection by OWNER/FEDO unless otherwise agreed to in writing however such inspection shall not constitute waiver of the CONTRACTOR's obligations, responsibilities for the EQUIPMENT including care, safety and preservation in any way and manner and the CONTRACTOR's responsibility and obligation in this behalf shall continue till PRELIMINARY ACCEPTANCE OF PLANT.
- 4.2.15.2 Generally, on-Deck shipment shall not be made without prior permission of OWNER/FEDO. However, in case of towers, reactors, vessels and other large-sized EQUIPMENT, CONTRACTOR may, at its own discretion, make on-deck shipment, without OWNER's prior permission. In case of damage to such EQUIPMENT, during delivery or at any stage before PRELIMINARY ACCEPTANCE OF PLANT, CONTRACTOR shall be responsible for repair/replacement of EQUIPMENT.
- 4.2.15.3 Being an LSTK contract, consignee shall be the LSTK contractor for all consignments.:

Shipper = Sub-CONTRACTOR

Account = FACT-CD, AMBALAMEDU, KERALA, INDIA

Project = NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY

AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES

Port of

unlading Cochin, India

In case of Import of goods from a foreign country by LSTK contractor, the concessional rate of Customs Duty, if any, is to be availed by the LSTK contractor and shall pass on the same to the owner.

4.2.16. Property in EQUIPMENT

- 4.2.16.1 DELETED.
- 4.2.16.2 DELETED.
- 4.2.16.3 CONTRACTOR shall arrange services of ocean transportation, carry out the services of port clearance, take into custody and care of GOODS at the port of entry in India for imported



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supplies and Ex-Works for indigenous supplies and inland transportation up to SITE, comprehensive insurance, unloading, storage at SITE, transportation within SITE, complete services of erection, structural and PRE-COMMISSIONING, COMMISSIONG and PERFORMANCE AND GUARANTEE TEST runs for PLANT.

- 4.2.16.4 CONTRACTOR SHALL take prompt action to file the papers with customs authorities, importer of records, for getting the GOODS cleared from customs.
- 4.2.16.5 Deleted
- 4.2.16.6 CONTRACTOR shall carry out all obligations in regard thereto as stipulated in CONTRACT. The responsibility of receipt of material at site, its handling and its custody shall be with the CONTRACTOR.
- 4.2.16.7 CONSTRUCTION EQUIPMENT used by the CONTRACTOR and its SUB-CONTRACTORS in connection with the execution of works shall remain the property of CONTRACTOR or its SUB-CONTRACTORS. All duties, levies, taxes etc. payable on account of CONSTRUCTION EQUIPMENT shall be borne by the CONTRACTOR. CONTRACTOR shall indemnify the OWNER/FEDO on this count.
- 4.2.16.8 All imported surplus materials other than CONSTRUCTION EQUIPMENT which is brought to the SITE after availing concessional rate of custom duty shall be the OWNER's property and be returned by the CONTRACTOR to the OWNER's designated stores. All such materials shall be subject to reconciliation and a proper accounting procedure shall be developed and strictly followed by the CONTRACTOR recorded in the inspection reports, proforma of which will be approved by FEDO/PROJECT MANAGER. These reports shall form part of the completion DOCUMENTS. Inspection and acceptance of the WORK shall not relieve the CONTRACTOR from any of his responsibilities under this CONTRACT. However, Surplus Material will be allowed to be taken back by Contractor aftercompliance of statutory formalities
- 4.2.16.9 The care and custody responsibility of CONTRACTOR for EQUIPMENT shall terminate upon PRELIMINARY ACCEPTANCE of PLANT.

4.2.17 Assembly Marks and Name Plates

- 4.2.17.1 All component/parts of EQUIPMENT shall be indelibly hard marked with identification marks, comprising EQUIPMENT, part numbers, and CONTRACT number/PO number which shall also be shown on drawing to facilitate speedy identification, assembling or dismantling.
- 4.2.17.2 On each EQUIPMENT a nameplate indicating basic details, pressure rating, wherever applicable, code number of EQUIPMENT, electrical characteristics in case of electrical EQUIPMENT, name of instrument with tag no., manufacturer s name shall be fixed at proper place.
- 4.2.17.3 For packages where marking is not possible at least two metallic nameplates must be



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affixed. Marking on the plates will be by means of engraving or indelible paint and will include the information listed above.

4.2.18 Despatch/Shipping notice

4.2.18.1 CONTRACTOR shall notify OWNER/FEDO by fax/E-mail for their information the expected date of delivery of a consignment, date of readiness of EQUIPMENT for shipment, total gross weight and total volume with dimensions.

4.2.19 Heavy Lift Consignment (HLC) or Over Dimensional Consignments (ODC)

4.2.19.1 For Road Transport in India, packages exceeding one or more of the following measurements will be considered as HLC's or ODC's (herein after referred to as ODC).

Weight 10 tonnes Length 5.5 meters Width 2.1 meters Height 2.1 meters

4.2.19.2 For railway transport in India, packages exceeding one or more of the following measurements will be considered as ODC:

Broad Gauge

Length 13716 mm

Maximum Width 2845 mm

Maximum Height 2743 mm

Top width at Maximum Height 610mm

Height of Maximum Width 2133 mm

Weight 54 MT

- 4.2.19.3 CONTRACTOR shall make his own arrangements for movement of all consignments including ODC. For obtaining the approval of the Indian Railways, CONTRACTOR shall need to submit the following particulars regarding each ODC to Railways:
 - a) Length of package
 - b) Height of the package at the top (in center) & insides
 - c) Width at top, center and bottom
 - d) Dimension of the projections, nozzles, if any along with their location on the equipment.
 - e) Gross and net weight of the package



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f) Center of Gravity on different

- g) Packing and lashingarrangement
- h) Mode of loading and unloading
- i) If the special wagon/mode is to be adopted for the transport of the package, the details of the same are to be provided in drawings.
- 4.2.19.4 The above is as per information available with OWNER/FEDO. However, CONTRACTOR shall verify the same with concerned authorities. OWNER/FEDO shall not be liable for any extra cost, which CONTRACTOR incurs due to use of above information without verifying it.
- 4.2.19.5 CONTRACTOR confirms that it has surveyed the route for transportation of ODC items of EQUIPMENT and CONTRACTOR further confirms that it has included all cost of repairs of road, civil works, strengthening of bridges, culverts, widening of roads, etc. as required for transportation of ODC items of EQUIPMENT in its CONTRACT PRICE. OWNER/FEDO shall not be responsible for repairs of road, civil works, strengthening of bridges, culverts, widening of roads, etc. as required for the transportation of ODC items of EQUIPMENT and shall not be liable to reimburse the cost of such repairs of road, civil works, strengthening of bridges, culverts, widening of roads, etc. to CONTRACTOR.

4.2.20 Marking

4.2.20.1	CONTRACTOR shall mark the following on packing three sides i.e. two sides faced and cover
	(Top) EQUIPMENT with indelible paint in conspicuous printed letters not less than 5 cm. in
	size in English:

A.	For Imported EQUIPMENT Government of		
	India A/c FACT-CD, AMBALAMEDU, KER	ALA,	
	INDIA		
	Project: NEW 10000 MT DOUBLE WALL	DOUBLE	
	INTEGRITY AMMONIA STORAGE TANK	AND ASSOCIATED	
	FACILITIES		
a)	CONTRACT/PO NO.	:	
b)	Equipment Description and Item Nos.	:	
C)	Package	: of	



d)

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d)	Gross / NetWeight (Kgs.) :
e)	Dimension L x W x H cm :
f)	WARNING MARKS (FRAGILE, ATTENTION, TOP, KEEP DRYETC.)
g)	Forwarding No. :
h)	Part shipment/full shipment/final shipment:
i)	Each package shall bear a symbol contained in the package as follows: 'A'
	for Storage in a closed storehouse
	⁴ B ³ for Storage under a shed ⁴ C ³
	for Storage in the open

- 4.2.20.2 Depending on the characteristics of the contents in the packages, the packages have to be marked with appropriate international marking ("HANDLE WITH CARE"; "THIS SIDE UP"; "SLING MARK"; ETC.) and other indications necessary for correct handling such as Centre of Gravity and points of slinging (in case of heavy loads).
- 4.2.20.3 For packages where marking is not possible, at least two metallic nameplates must be affixed. Marking on the plates will be by means of engraving or indelible paint and will include the information listed above
- 4.2.20.4 All corners of the packages shall be painted with indelible 'Blue' paint at least 125 mm in depth for easy identification/location of the packages for clearance and handling at the port.

4.2.21 Packing List

- 4.2.21.1 CONTRACTOR will include in each package an item-wise packing List, Invoice No. and associated drawings.
- 4.2.21.2 The packing list and any other documents shall be put in a closed polyethylene envelope and included in each package.
- 4.2.21.3 A second copy of the packing list shall be placed in a polyethylene envelope on the outside of the each package by means of metallic plate marked "Documents". As regards columns, exchangers and similar equipment, the envelope shall be placed in a nozzle being identified by an arrow, in indelible paint, followed by the word "Document".
- 4.2.21.4 Shipping documents must always be presented in the number of copies indicated in this CONTRACT.



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4.2.22 Ready for shipment notice.

4.2.22.1 Independent of the type of delivery agreed in this CONTRACT, CONTRACTOR shall advise OWNER/FEDO and the appointed Forwarding Agent six weeks in advance, only and exclusively by fax or E-mail, of the exact date of readiness for shipment of the imported equipment from CONTRACTOR's SUB-CONTRACTOR's / Vendor's shop indicating - Statement

"Ready for Shipment"

FACT-CD, AMBALAMEDU

PROJECT: NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA STORAGE TANK AND ASSOCIATED FACILITIES

CONTRACT / PO Number:

Description and Item Number of equipment and/or parts to be shipped

Number, size and gross weight of packages

Forwarding Agent will inform CONTRACTOR about the place and the date on which imported EQUIPMENT shall be delivered.

4.2.23 Shipping Arrangements and Forwarding of Documents

- 4.2.23.1 OWNER requires ocean transportation by Conference Line vessels or by Indian flag Vessels. Only in case of extreme exigencies, if the specified carrier is not available within the delivery period required by CONTRACTOR, alternate carrier can be used with prior approval of OWNER. All shipping arrangements shall be made by CONTRACTOR with the help of Secretary, Govt. of India, Ministry of Surface Transport (Chartering Wing), 1, Parliament Street, Parivahan Bhawan, New Delhi 110 001 through their ForwardingAgent.
- 4.2.23.2 Adequate notice of not less than six (6) weeks about the readiness of Cargo for shipment should be given to Forwarding Agent from time to time for finalising the shipping arrangements.
- 4.2.23.3 For the purpose of ascertaining the availability of suitable Conference Lines vessels and Indian Member Lines vessels and granting dispensation in the event of their non-availability, CONTRACTOR shall give adequate notice about the readiness of each consignment from time to time at least six weeks in advance of the required position to the forwarding agent and also endorse a copy thereof to Secretary, Govt. of India, Ministry of Surface Transport (Chartering Wing), 1, Parliament Street, Parivahan Bhawan, New Delhi–110 001 as also OWNER.
- 4.2.23.4 CONTRACTOR shall send, copies of notices described under Clause 4.2.23.3, to OWNER/FEDO.



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- 4.2.23.5 CONTRACTOR shall avoid the use of over aged vessels for the shipment of the imported EQUIPMENT under this CONTRACT and if so used, the cost of additional insurance, if any, shall be borne by CONTRACTOR.
- 4.2.23.6 For arranging clearance of shipment at Indian Port of entry, one set of shipping document as under is to be dispatched by mail to CONTRACTOR.
 - a) 1/3 original Bill of lading (B/L).
 - b) 2 copies of non-negotiable copies of B/L.
 - c) 2 copies of packing list.
 - d) 2 copies of signed invoice.
 - e) 2 copies of certificate of origin.
 - f) 2 copies of intimation to Insurance Company.
 - g) Freight Bill, if freight is paid by CONTRACTOR.
 - h) Test Certificates.
 - i) Inspector Release Note.
- 4.2.23.7 Other sets of shipping documents shall be air mailed to officers as given hereunder:

Documents	Nominated Bank	OWNER's	OWNERS [,] S
		DGM (Finance)	DGM (Materials)
2/3 original B/L	2	NIL	NIL
Non-negotiable B/L	1	1	2
Packing List	2	1	2
Signed item wise	3	1	2
invoice			
Certificate of origin	3	1	2
(signed)			
Test Certificate	1	1	2
Inspector release note	1	1	1
Insurance company	1	1	1
notice			

4.2.24 Despatch/Shipment Notice for Insurance.

4.2.24.1 CONTRACTOR shall send intimations of despatches indicating items despatched, quantity, value, weight and carrier particulars directly through fax to the insurance company fixed by CONTRACTOR. A copy of this letter/ intimation shall also be given to commercial negotiating bank for payment against Letter of Credit. Copies shall also be sent to OWNER/FEDO.



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4.2.24.2 Insurance for transit risks and other risks shall be covered by CONTRACTOR.

4.2.25 Spares, Special Maintenance Tools, Lubricants, Chemicals and Consumable

4.2.25.1 CONTRACTOR shall procure and supply commissioning spares, special maintenance tools and fixtures for EQUIPMENT, lubricants, chemicals and consumable in sufficient quantity for COMMISSIONING and maintenance of PLANT, as described in FINAL PROPOSAL. The commissioning spares, special maintenance tools, lubricants, chemicals and consumable procured and supply shall be optimum, so as not to fall short during COMMISSIONING. CONTRACTOR shall obtain for these items the appropriate guarantees and warranties. CONTRACTOR shall also ensure that the commissioning spares and special maintenance tools and fixtures are procured along with the related items of EQUIPMENT and form part of PURCHASE ORDER for the related items of EQUIPMENT.

4.2.26 Commissioning Spares and Consumable

4.2.26.1 CONTRACTOR shall supply spares and consumable required for CONSTRUCTION, PRE-COMMISSIONING, COMMISSIONING, START-UP and TESTING of PLANT. The cost of spares and consumable shall be included in CONTRACT PRICE.

4.2.27 Special Maintenance Tools

4.2.27.1 CONTRACTOR shall supply special devices or tools required for normal maintenance, special handling and lifting of EQUIPMENT with main EQUIPMENT. The cost of such special maintenance tools shall be included in CONTRACTPRICE.

4.2.28 Lubricants

- 4.2.28.1 CONTRACTOR shall supply lubricants in sufficient quantity for the first filling and make-up required up to PRELIMINARY ACCEPTANCE of PLANT. The cost of lubricants shall be included in the CONTRACT PRICE.
- 4.2.28.2 CONTRACTOR shall furnish the name of recommended lubricants indicating their commercial/trade name, quality and grade and equivalent quality lubricants (in case of imported lubricants) available in India to OWNER.

4.2.29 Spares

4.2.29.1 Bidder shall quote for insurance spares, commissioning/pre-commissioning spares and cost towards the procurement efforts by LSTK contractor for operational spares and other requirements for spares as per Spare Parts Requirements in the Technical Specification attached.

4.2.30 Construction Tools

4.2.30.1 CONTRACTOR shall procure and supply special construction aids, tools, tackles and fixture, required for construction and during normal operation & maintenance of PLANT. The cost of



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such special construction tools shall be included in CONTRACT PRICE.

4.2.31 General

- 4.2.31.1 CONTRACTOR shall furnish to OWNER/FEDO, the blue prints, drawings and specifications of the spare parts.
- 4.2.31.2 CONTRACTOR shall provide to OWNER/FEDO all addresses and particulars of its SUB-CONTRACTOR/VENDOR on whom PURCHASE ORDER for EQUIPMENT covered under CONTRACT has been placed and will further ensure with its SUB-CONTRACTOR/VENDOR that, OWNER if so desired, shall have the right to place order for operational spare parts directly on them on mutually agreed terms based on offers of such SUB-CONTRACTOR/VENDOR.
- 4.2.31.3 Spare parts shall be new and of first class quality as per engineering standards/codes, free of any defects (even concealed), deficiency in Design, Materials and Workmanship and also shall be completely interchangeable with the corresponding parts.
- 4.2.31.4 Type and sizes of bearing/seals shall be clearly indicated.
- 4.2.31.5 Spare parts shall be packed for long storage under tropical climatic conditions in suitable cases, clearly marked as to their intended purpose.
- 4.2.31.6 Any scrap, surplus material including cement, steel, etc. resulting from execution of WORK, for which OWNER has made payments to CONTRACTOR, shall be the property of OWNER. However, Surplus Material as certified by OWNER will be allowed to be taken back by Contractor after compliance of statutoryformalities.

4.2.32 Warrantees and Guarantees

4.2.32.1 Materials and Workmanship Warranty

- a) CONTRACTOR warrants that EQUIPMENT supplied under the CONTRACT are new, unused, of the recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in CONTRACT. CONTRACTOR further warrants that EQUIPMENT supplied under this CONTRACT shall be of first quality according to specifications, have no defect (even concealed) arising from design, materials or workmanship or form any act or omission of CONTRACT that may develop under normal use of the supplied EQUIPMENT in the conditions prevailing in the country of final destination.
- **b)** The warranty period for the EQUIPMENT supplied by CONTRACTOR shall be valid for 12 months for all EQUIPMENT from the date of PRELIMINARY ACCEPTANCE.
- c) The warranty shall be valid for the period as described under Clause -4.2.32.1.b) from the date of PRELIMINARY ACCEPTANCE and shall be governed by Clause 17 of this SPECIAL CONDITIONS OF CONTRACT. Should any DEFECTS be noticed in design, material and/or workmanship within the said warranty period, OWNER/FEDO shall inform CONTRACTOR and CONTRACTOR shall immediately on receipt of such intimation depute their personnel within 10 DAYS to investigate the causes of DEFECTS and arrange rectification / replacement / modification of the defective



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EQUIPMENT at SITE without any cost to OWNER/FEDO, within a reasonable period. If CONTRACTOR fails to take proper corrective action to replace/ repair defective Equipment satisfactorily within a reasonable period, OWNER shall be free to take such corrective action as may be deemed necessary at CONTRACTOR·s risk and cost, after giving notice to CONTRACTOR. OWNER/FEDO shall promptly notify CONTRACTOR in writing of any claims arising under this warranty.

- d) In case defects are of such nature that EQUIPMENT shall have to be taken to CONTRACTOR'S/ SUB-CONTRACTOR'S/ VENDOR'S works for rectification etc., CONTRACTOR shall take EQUIPMENT at their cost after giving necessary undertaking or security as may be required by OWNER. OWNER shall, if so required by CONTRACTOR, despatch EQUIPMENT by quickest mode on freight to pay basis to CONTRACTOR'S / SUB-CONTRACTOR'S / VENDOR'S works. After repairs CONTRACTOR shall deliver EQUIPMENT at SITE on freight paid basis. All risks to transit to and from shall be borne by CONTRACTOR.
- e) EQUIPMENT or part thereof so repaired or replaced shall have further warranty for a period of 12 months from the date of its acceptance after repair/replacement and the Performance Bank Guarantee shall be suitably extended for the same. The value of the Performance Bank Guarantee during the extended warranty period shall be 10 (Ten) percent of the cost of such repaired/replaced EQUIPMENT or itsparts.
- f) If the repairs, replacements or modifications referred to above are of such nature which may affect the efficiency of EQUIPMENT, OWNER shall have right to give notice in writing to CONTRACTOR within one month of such repair/ replacement/ modification to carry out tests as may be required for acceptance of EQUIPMENT.
- g) If CONTRACTOR fails to meet its obligation to repair or replace defectiveEQUIPMENT and make it good within a reasonable period of time and or if CONTRACTOR refuses to carry out WORK under the guarantee clause and implied guarantee conditions and/or in case of severe urgency, OWNER/FEDO shall be entitled to carry out repair/replacement/WORK or arrange to carry out repair/ replacement/WORK by a third party. The entire cost of such repair/ replacement/WORK including taxes and duties etc. shall be borne by the CONTRACTOR. In case, the cost of such repair/replacement/WORK has been incurred by OWNER/FEDO, CONTRACTOR shall reimburse the same immediately on demand by OWNER/FEDO.
- h) Damages to EQUIPMENT deriving from incomplete, erroneous instructions issued by CONTRACTOR will be considered CONTRACTOR's fault and will be treated according to the provision of warranty clause. Normal wear and tear shall not come under purview of this clause.

4.2.32.2 Performance Guarantee of PLANT / EQUIPMENT

- **4.2.32.2.1** CONTRACTOR guarantees that the performance of PLANT supplied under CONTRACT shall be strictly in conformity with the specifications and shall perform the duties and have consumption, production and other guarantees set forth in CONTRACT.
 - **4.2.32.2.2** If the performance of PLANT and/or any of EQUIPMENT fails to be as guaranteed and set forth in CONTRACT, CONTRACTOR shall investigate the causes and provide free of cost to OWNER/FEDO, DESIGN, ENGINEERING, MATERIALS and SERVICES and EQUIPMENT within a reasonable period to prove guarantees. CONTRACTOR·s



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liability in this respect shall be unlimited, in accordance with the provisions of CONTRACT.

4.2.33 Government Clearances, Permits and Certificates

- 4.2.33.1 CONTRACTOR shall procure at its expenses, all necessary APPLICABLE PERMITS, certificates and licenses required by virtue of all APPLICABLE LAWS, regulations, ordinances and other rules in effect at the place where any of WORK is to be performed, and CONTRACTOR shall further hold OWNER/FEDO harmless from liability or penalty which might be imposed by reason of any asserted or established violation of such laws, regulations, ordinances or other rules. OWNER will provide the necessary assistance to CONTRACTOR for obtaining PERMITS for CONTRACTOR's personnel to undertake WORK in India in connection with CONTRACT.
- 4.2.33.2 CONTRACTOR shall furnish necessary data/specifications/drawings etc. of EQUIPMENT likely to be imported to OWNER for obtaining import licence / necessary Government Clearances, for the same. CONTRACTOR shall also furnish necessary technical information, data, drawing, etc. as and when required to OWNER/FEDO for submission to Government/Statutory Agencies.

4.2.34 Network Schedule

- 4.2.34.1 OWNER/FEDO would be using a computerised time and cost monitoring system and CONTRACTOR shall provide necessary input data for the same. CONTRACTOR shall prepare within 30 (thirty) days from EFFECTIVE DATE OF CONTRACT and provide to OWNER/FEDO a PROJECT MASTER SCHEDULE indicating the important milestones of activities relating to WORK from EFFECTIVE DATE OF CONTRACT to the date of PRELIMINARY ACCEPTANCE. This PROJECT MASTER SCHEDULE shall be discussed with and approved by OWNER/FEDO. Based on the approved PROJECT MASTER SCHEDULE, CONTRACTOR shall also prepare network schedules for activities relating to WORK. CONTRACTOR shall obtain the details of progress of various activities of WORK from SUB-CONTRACTOR and vendor wherever required and update the network schedules and PROJECT MASTER SCHEDULE incorporating the progress achieved by CONTRACTOR, SUB-CONTRACTOR and vendor and submit the same to FEDO/PROJECT MANAGER on monthly basis.
- 4.2.34.2 CONTRACTOR shall clearly indicate any delay in WORK in the above schedules and shall inform FEDO/PROJECT MANAGER the action taken to achieve the GUARANTEED COMPLETION DATE.

4.2.35 Time Schedule Network/Bar Chart

4.2.35.1 Within 30 (thirty) DAYS from EFFECTIVE DATE OF CONTRACT, CONTRACTOR shall submit to FEDO/PROJECT MANAGER its time schedule regarding delivery of documentation, supply and manufacture of EQUIPMENT, time schedule for placement of purchase order and SUB-CONTRACT, etc.



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- 4.2.35.2 The time schedule will be in the form of a network and a bar chart clearly indicating all main or key events regarding documentation, supply of raw materials, manufacturing, testing and delivery of equipment, civil works, erection, commissioning, testing etc.
- 4.2.35.3 The original issue and subsequent revisions of such time schedule shall be sent to OWNER in two copies (of which one shall be a reproducible/soft copy). The time schedule network/bar chart shall be updated at least every month during the period of CONTRACT.

4.2.36 Progress of WORK

- 4.2.36.1 CONTRACTOR shall report monthly to OWNER/FEDO of the execution of CONTRACT and achievement of targets set out in time bar chart, in a monthly progress reporton 7th working day of every Month.
- 4.2.36.2 The progress shall be expressed in percentages for all activities.
- 4.2.36.3 The first issue of the progress report shall be forwarded together with the time bar chart.
- 4.2.36.4 OWNER/FEDO shall also review the physical/actual progress of WORK on the basis of CONTRACTOR's time schedule documentation.
- 4.2.36.5 Irrespective of such review, CONTRACTOR shall advise OWNER/FEDO at the earliest possible date of any anticipated delay in the progress.
- 4.2.36.6 In the event that the delay is caused by a delay in the delivery of a sub-contracted EQUIPMENT, CONTRACTOR shall be responsible for such delay and submit details together with copies of the appropriate orders and agreements with SUB-CONTRACTOR/Vendor

4.2.37 Transportation and Storing of EQUIPMENT

4.2.37.1 CONTRACTOR shall be responsible for proper packing, transportation from vendor's workshop to port or railway station (whether by road, rail, ship or aircraft), handling and clearances at port or railway station including loading and unloading, customs clearance, carriage to SITE, unloading at SITE, warehousing, coding and tagging, storage including proper preservation, etc. of EQUIPMENT. Any special clearance, lifting, handling, loading/unloading, and transport arrangements for over dimensional consignments shall also be done by CONTRACTOR. CONTRACTOR shall ensure timely delivery of EQUIPMENT. CONTRACTOR shall endeavour to have the consignments in the upper part of the hold to enable early discharge at the Port of Disembarkment. The above arrangement shall be in accordance with the guidelines set forth in the Coordination Procedure. CONTRACTOR shall be responsible for inspection of EQUIPMENT on receipt at SITE and for maintenance and management of stores and warehousing of EQUIPMENT at SITE including all activities connected with the issue



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of EQUIPMENT, accounting and final reconciliation and handing over of stores to OWNER.

4.2.37.2 OWNER shall provide area at SITE for making shed/covered stores etc. for storing EQUIPMENT. CONTRACTOR shall be responsible for making shed/covered stores etc. for safe storage of EQUIPMENT.

4.2.38 Construction

4.2.38.1 CONTRACTOR shall be responsible for all civil and structural work, foundations, insulating & painting works, erection, site fabrication, piping, instrumentation, electrical installation, and other miscellaneous construction jobs of PLANT leading to MECHANICAL COMPLETION and PRELIMINARY ACCEPTANCE of PLANT. CONTRACTOR shall organise these activities in appropriate sequence and use proper methods giving due regard to the requirements of safety, quality, sound engineering practice, in compliance with relevant Codes and Regulations, and for achieving PRELIMINARY ACCEPTANCE of PLANT on or before GUARANTEED COMPLETION DATE.

The CONTRACTOR shall within the scope of work observe in addition to specifications, all national and local laws, ordinances, rules and regulation and requirements pertaining to the WORK.

Various procedures and methods to be adopted by CONTRACTOR during the construction as required in the respective specifications shall be submitted to OWNER/FEDO in due time and well in advance of the specific work for approval.

The CONTRACTOR shall carry out required supervision as per approved Quality Assurance Plan and furnish all assistance required by the OWNER/FEDO in carrying out inspection work. The OWNER/FEDO will have authorised representatives present who shall have free access to the work at all times. If an OWNER's/FEDO's representative notifies the CONTRACTOR's representative of any deficiency in any work or in the supervision thereof, the CONTRACTOR shall make every effort to carry out such instructions consistent with best industry practice.

The CONTRACTOR shall so far as reasonably feasible employ skilled workers who are Certified Tradesmen in the field(s) of their relative activities(s).

- 4.2.38.2 CONTRACTOR shall submit and adhere to the completion schedule of construction leading to MECHANICAL COMPLETION.
- 4.2.38.3 In case of delay in completion beyond the stipulated completion period as specified under clause 4.2.38.2 for reasons attributable to Contractor, all extra costs on account of changes of statutory regulations / Acts, shall not apply to Contract price and the same shall be borne by Contractor.

4.2.39 Civil Work Warranty



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4.2.39.1 CONTRACTOR shall certify that the all civil works, reinforced concrete, structures, permanent buildings and foundations has been designed in accordance with stipulations of relevant BIS Codes.

4.2.40 Safety and Plant Security

- 4.2.40.1 CONTRACTOR shall observe and also use its best efforts to ensure that all parts of WORK carried out at SITE is being done in a safe and satisfactory manner conforming to the applicable Safety Rules and Regulations. Further, CONTRACTOR shall observe and make provisions in SUB-CONTRACT that employees working for PLANT observe all the Safety Rules as required under the Factories Act and Regulations and other Local Laws and SUB-CONTRACTOR to provide safety apparel and equipment to its employees. OWNER/FEDO shall have the right to object to any unsafe practice followed by SUB-CONTRACTOR's employees or any CONTRACTOR's personnel and direct them to carry out the job in a manner considered safe by OWNER/FEDO. CONTRACTOR shall further abide by all the Security Regulations imposed by OWNER/FEDO.
- 4.2.40.2 CONTRACTOR shall observe all safety rules so that no harm is done to OWNER's employees or property. If on account of CONTRACTOR, OWNER's property or personnel are likely to suffer any damage, in such cases any directions issued by OWNER/FEDO shall be carried out by CONTRACTOR.

4.2.41 PRE-COMMISSIONING Services of PLANT

- 4.2.41.1 CONTRACTOR shall render and be responsible for pre-commissioning activities leading to MECHANICAL COMPLETION. These activities will include relevant checking, adjustment, testing, calibration, running in and trial runs of individual items of EQUIPMENT, and other similar jobs. OWNER shall provide experienced/trained and suitable operating and maintenance personnel who will perform their tasks under the supervision and direction of CONTRACTOR.
- 4.2.41.2 CONTRACTOR shall provide experienced personnel as required for carrying out the PRE-COMMISSIONING activities with OWNER's personnel.
- 4.2.41.3 CONTRACTOR shall provide SUB-CONTRACTOR's SPecialists wherever required. Suitable provision for such services shall be made by CONTRACTOR in their PURCHASE ORDER/SUB-CONTRACT.

4.2.42 MECHANICAL COMPLETION

4.2.42.1 CONTRACTOR shall be responsible for completing the design, engineering, procurement, inspection and expediting, arranging for transportation of EQUIPMENT,



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construction and PRE-COMMISSIONING for making PLANT ready for acceptance of feed stock before the MECHANICAL COMPLETION.

4.2.43 COMMISSIONING SERVICES of PLANT

- 4.2.43.1 CONTRACTOR shall be responsible for COMMISSIONING after PRE- COMMISSIONING activities have been completed giving due regard to safety of EQUIPMENT according to sound national and international practices. OWNER shall provide experienced trained operating and maintenance personnel who shall work under the supervision and direction of CONTRACTOR. The COMMISSIONING activities shall include the following:
 - a) Introduction of utilities and lining-up of various sections of PLANT
 - b) Stabilising PLANT and stepping up storage capacity.
 - c) Demonstrating and Conducting sustained load test and Guarantee Test as per Part-II, Technical.
- 4.2.43.2 CONTRACTOR shall provide engineers as required to commission PLANT. CONTRACTOR shall be responsible to provide supervision personnel for operation of PLANT until PRELIMINARY ACCEPTANCE and OWNER will operate the PLANT under the supervision and instructions of CONTRACTOR. During the sustained load test and the guarantee test, the range of operating conditions shall be within the limits of the design conditions and shall meet the requirements of safety and compliance with relevant Codes and Regulations.

4.2.44 PERFORMANCE GUARANTEE TEST

- 4.2.40.1 CONTRACTOR shall successfully complete PERFORMANCE TEST as early as possible after MECHANICAL COMPLETION.
- 4.2.40.2 CONTRACTOR shall, when PLANT is stabilized at full plant capacity to the satisfaction of OWNER, shall carry out PERFORMANCE TEST and prove Guarantees.

4.2.45 Deleted

4.2.46 Progress Monitoring and Reporting

4.2.46.1 CONTRACTOR shall develop a suitable system for monitoring and reporting progress on the various activities up to PRELIMINARY ACCEPTANCE. CONTRACTOR shall submit PROJECT MASTER SCHEDULE and detailed Network Schedule covering the activities and milestones starting from EFFECTIVE DATE OF CONTRACT until PRELIMINARY ACCEPTANCE. These schedules shall include the activities of CONTRACTOR, SUBCONTRACTOR and VENDOR. CONTRACTOR shall monitor progress continuously and submit to OWNER/FEDO monthly progress reports giving the status of the activities,



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indicating those delayed and action being taken, or required to be taken, to bring back those activities on schedule. These reports will also include progress at vendor's workshops and shall be supplemented with photographs, wherever necessary.

The Network Schedule shall be updated once in a month. CONTRACTOR shall also furnish information to OWNER/FEDO as may be required by any other Government Authority or any other agency such as Financing Institution etc.

4.2.47 Technical Information

4.2.47.1 CONTRACTOR shall furnish to OWNER/FEDO, CONTRACTOR's and PROCESS LICENSOR'S Technical Information and know-how as may be necessary for the operation of PLANT and relating to its process. CONTRACTOR shall grant or cause to be granted to OWNER an irrevocable right to use all such above technical information at no extra cost to OWNER. Notwithstanding the generality of the foregoing, ownership of data, technical information processes, technology or software proprietary to CONTRACTOR and/or SUBCONTRACTORS shall remain with CONTRACTOR and/or SUBCONTRACTOR. CONTRACTOR and/or SUBCONTRACTOR shall ensure that OWNER is legally entitled to use of such data, processes, technology and software in the form of a perpetual, non-terminable, non-exclusive, royalty-free license for the purpose of the operation and maintenance of the PLANT

4.2.48 Work of SUB-CONTRACTOR and VENDOR

4.2.48.1 CONTRACTOR shall remain responsible for proper execution of such part of WORK as are carried out by its SUB-CONTRACTOR/VENDOR and any failure of SUB-CONTRACTOR/VENDOR shall not relieve CONTRACTOR of its obligations under CONTRACT. Furthermore, in the event of any default by SUB-CONTRACTOR/VENDOR, CONTRACTOR shall either take over SUB-CONTRACTOR/VENDOR'S part of WORK on mutually agreed terms or take remedial action as may be necessary in order to comply with GUARANTEED COMPLETION DATE and any other activities leading to PRELIMINARY ACCEPTANCE byOWNER/FEDO.

4.2.49 Co-ordination

- 4.2.49.1 CONTRACTOR shall render all necessary assistance to OWNER/FEDO required for overall co-ordination of all activities connected with WORKS. For this purpose, CONTRACTOR and OWNER/FEDO shall agree on a meeting as soon as practicable after EFFECTIVE DATE OF CONTRACT, with SUBCONTRACTOR/VENDOR'S and such other parties as are necessary to settle the following:
 - a) Review the basic design conditions set forth in FINAL PROPOSAL and where appropriate, review possibilities of standardisation.
 - b) Assess the priorities and key dates required to be included inCONTRACTOR's



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PROJECT MASTER SCHEDULE.

- c) Make an assessment of all items requiring co-ordination.
- d) Fix up a date and agenda of any subsequent meeting as may be required in association with OWNER/FEDO.
- e) Discuss with FEDO/PROJECT MANAGER and furnish all technical information about various effluents/emission and discharge points from different sources indicating the quality and quantity of gaseous and liquid emission of pollutants from PLANT. CONTRACTOR shall also supply FEDO/PROJECT MANAGER any additional information required on the above matter during the performance of process design and basic engineering design.

In the event, FEDO/PROJECT MANAGER pursuant to its responsibilities of overall co-ordination requests CONTRACTOR to make any alteration to the programme, scope of responsibility under CONTRACT, CONTRACTOR shall do the same, subject to the provisions of Clause 6.0. change in work/ change order.

4.2.50 Notices and Reports

- 4.2.50.1 CONTRACTOR shall submit the following copies of notices to OWNER/FEDO as part of the Scope of Work:
 - a) Immediate notification of safety incidents and accidents, including near misses, of any kind or type followed as soon as possible after such event by a full report.
 - b) Notices from any Government / Statutory Agency or any other Person for a violation of any Law or Government Approval, immediately upon receipt by CONTRACTOR and not later than twenty-four (24) hours after its receipt.
 - c) Inspection reports by any inspector whether relating to any accident, accepting any test reports or otherwise immediately upon receipt by CONTRACTOR and not later than two (2) working DAYs after its receipt.

4.2.51 CONTRACTOR's Representative and Key Personnel

4.2.51.1 CONTRACTOR shall with prior consent of OWNER/FEDO appoint a CONTRACT MANAGER to manage the execution of WORK and he shall be CONTRACTOR's authorized Representative in India. CONTRACTOR's personnel stationed at SITE for providing services during the execution of WORK shall work under the supervision and guidance of CONTRACT MANAGER. The CONTRACT MANAGER shall have the full authority to make binding and enforceable in the name of CONTRACTOR and shall receive all notices/correspondence that OWNER/FEDO serves onCONTRACTOR.



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4.2.51.2 CONTRACTOR shall be responsible for the work performed by CONTRACT MANAGER and CONTRACTOR's personnel and shall under no circumstances be relieved of its responsibilities and obligations under CONTRACT on account of acts or omissions of CONTRACT MANAGER and personnel.

4.2.51.3 The Key Personnel shall hold the staff positions as indicated in CONTRACT. CONTRACTOR shall use reasonable efforts to ensure that such Key Personnel will be engaged in the execution of WORK continuously until their role is completed unless prior release is approved by OWNER/FEDO, such approval not to be unreasonably withheld or delayed. Replacement of or addition to Key Personnel shall only be made with persons having qualifications and experience equal to or better than those replaced or added to, and shall be similarly subject to OWNER's prior approval. In the event, any person identified in CONTRACT decides to leave the employment of CONTRACTOR, CONTRACTOR shall use reasonable efforts to retain the services of such person until his portion of WORK is complete. CONTRACTOR further agrees not to remove from WORK Key Personnel, which OWNER/FEDO considers to be necessary for the proper performance of WORK without the prior written approval of OWNER/FEDO.

4.2.52 General Warranties

- a) CONTRACTOR shall perform WORK in full compliance with the FINAL PROPOSAL / Work Order and all other terms and conditions set forthherein.
- b) WORK shall be performed, in a good and workmanlike manner and in accordance with the FINAL PROPOSAL / Work Order, all other terms and conditions of this CONTRACT, all DOCUMENTS, all Government Approvals, all APPLICABLE LAWS, and Good Industry Practices.
- c) All EQUIPMENT, installed as part of PLANT, (i) shall be free from any encumbrance or lien and shall conform to the specifications and descriptions set forth in CONTRACT and (ii) shall be new and unused, free from DEFECTS and Deficiencies of any kind and shall meet the requirements of the Scope of Work.
- d) The completed PLANT shall be free of DEFECTS and Deficiencies and shallbe designed, constructed and engineered, in compliance with the Scope of Work.
- e) PLANT shall be designed, engineered, constructed, tested, completed and delivered based on Good Industry Practices, CONTRACTOR'S/PROCESS LICENSOR'S specifications and guidelines for operation and maintenance in accordance with the Scope of Work, for CONTRACT PRICE and no later than the GUARANTEED COMPLETION DATE.
- f) All SUB-CONTRACTOR vendor shall perform their portion of the Scope of Work or supply or install EQUIPMENT in accordance with the applicable terms set forth herein.



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g) Adherence to the Operations Manual shall allow safe start-up, operation, maintenance and shut-downs of the completed PLANT, in accordance with CONTRACTOR's guidelines and will not impair any warranty or guarantee of EQUIPMENT incorporated or to be incorporated into PLANT.

4.2.53 Additional Tests

- 4.2.53.1 Except for tests required as per the provision of CONTRACT, OWNER/FEDO may at any time prior to FINAL ACCEPTANCE OF PLANT request re-testing or additional testing of any EQUIPMENT, incorporated or to be incorporated into PLANT, or WORK if OWNER/FEDO believes the results of earlier tests are not accurate or do not establish the true condition of EQUIPMENT or WORK being tested.
- 4.2.53.2 If a portion of WORK or any EQUIPMENT, incorporated or to be incorporated into PLANT, fails any additional test or retest requested by OWNER pursuant to Clause 4.2.50.1, then CONTRACTOR shall correct or replace, or cause its SUB-CONTRACTOR/VENDOR to correct or replace, such item or portion so as to pass additional testing or re-testing and otherwise meet or conform to such requirements. No changes to time schedule or increase in the CONTRACT PRICE shall be granted with respect to such additional testing. CONTRACTOR shall solely bear any cost resulting thereof (including the cost of any required uncovering and recovering of WORK). Neither the failure by OWNER/FEDO to discover Defects and Deficiencies, nor any payment to CONTRACTOR in respect thereof shall prejudice the rights of OWNER/FEDO thereafter to require and obtain from CONTRACTOR the satisfactory performance of WORK hereunder. OWNER shall not be deemed to have accepted any WORK as a result of any additional testing.

4.2.54 General

- 4.2.54.1 CONTRACTOR shall incorporate during design stage maximum utilization of goods manufactured and/or available in India and also avail shipping, insurance, banking, catering and any other services available from India-owned companies for installation of plant, if quality, delivery and overall cost characteristics are equivalent.
- 4.2.33.2 CONTRACTOR shall arrange insurance as per GCC, at its own cost.
- 4.2.33.3 CONTRACTOR shall provide necessary information, documentation, and assistance for obtaining any approvals from Financial Institutions or any other agencies or authorities.
- 4.2.33.4 Being an LSTK job, the CONTRACTOR shall take up any other activity (even if not specifically mentioned herein) for the successful completion of the project within the stipulated time period.

5.0 OWNER'S OBLIGATIONS



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OWNER shall be responsible for fulfilling all obligations as specified under the following heads:

5.1 Basic Conditions for Design

OWNER shall furnish information concerning the basic conditions for design to CONTRACTOR as soon as practicable, but in any event not later than as per the requirements of CONTRACTOR's engineering schedule established and made available to OWNER during the early stages of WORK. CONTRACTOR shall review the basic conditions, including soil data, and other conditions furnished by OWNER/FEDO. If CONTRACTOR observes any inconsistency or insufficiency in these data, CONTRACTOR shall bring to the notice of OWNER/FEDO the same, before use of such data/information.

5.2 Overall Co-Ordination

The objective of overall co-ordination is to organise orderly execution of WORK, bring about requisite integration amongst the various project activities of executing agencies, to achieve the technical quality, cost objective of WORK and to avoid interference between the various activities of the parties in order to achieve the earliest possible completion of WORK. The aim will be to integrate, have compatibility between plants and uniform standardisation of design, engineering, layout, etc.

5.3 Review and Approval of Work

- 5.3.1 CONTRACTOR shall associate OWNER/FEDO'S representatives with WORK as carried out by CONTRACTOR's personnel. For this purpose, OWNER/FEDO shall associate with WORK at all stages. Specifically, OWNER/FEDO shall undertake the following tasks:
 - a) Review/APPROVAL of drawings as per Part-II, Technical and other documents connected with basic and detailed engineering.
 - b) Review of specifications for EQUIPMENT, lists of spare parts and special maintenance tools, and lists of special construction aids, tools, tackles, and fixtures.
 - c) Participation in inspection, expediting and testing of EQUIPMENT at SUB-CONTRACTOR'S / VENDOR'S works and at SITE, wherever considered necessary by OWNERFEDO.
- 5.3.2 For the smooth functioning OWNER/FEDO will nominate an individual who will act as PROJECT MANAGER under the CONTRACT. The PROJECT MANAGER will have full authority to act on behalf of the OWNER/FEDO in connection with the CONTRACT. Except as otherwise provided in the CONTRACT, all communications between the OWNER/FEDO and the CONTRACTOR, relating to the WORKS, shall be between the PROJECT MANAGER and the CONTRACT MANAGER.
- 5.3.3 OWNER/FEDO shall depute its representatives to carry out above work at the office of CONTRACTOR. OWNER shall bear the cost of travel and stay of its personnel for such



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deputation. CONTRACTOR shall provide office accommodation, secretarial assistance, etc. in its office to OWNER/FEDO's personnel Number of OWNER/FEDO's personnel to be deputed at CONTRACTOR's office on single location shall not exceed 10 (ten) at a time.

5.4 Government Clearances

CONTRACTOR shall provide necessary services and assistance in obtaining Government clearances to be obtained in the name of OWNER. CONTRACTOR shall be responsible to obtain import license and clearance for Concessional Duty / Deemed Export Benefits as per prevailing rules.

5.5 Facilities for CONTRACTOR's Personnel

OWNER shall assist CONTRACTOR in obtaining Visas and other PERMITS from the appropriate authorities for CONTRACTOR's and SUB-CONTRACTOR's/VENDOR'S expatriates to enter and stay in India as necessary for performance of WORK. OWNER shall also provide facilities to CONTRACTOR's expatriates in accordance with the provisions described in Clause- 5.8 below.

5.6 Operating and Maintenance Personnel

OWNER shall provide experienced operating and maintenance personnel according to its organisation, specifications, and standards during the PRE-COMMISSIONING and COMMISSIONING activities, who will work under the direction and control of CONTRACTOR. OWNER shall associate its personnel with the construction and erection of PLANT to familiarise the personnel with WORK, ascertain quality, and generally to prepare for proper operation and maintenance of PLANT.

5.7 Feed stock and Utilities

OWNER shall make available the feedstock and utilities subject to limit specified in CONTRACT and take over all products and effluents at BATTERY LIMIT as specified in CONTRACT.

5.8 Site Facilities

OWNER shall provide the following SITE facilities:

- Construction water and power shall be provided, free of cost, by OWNER at a single location at site.
- b) SITE
- c) OWNER shall not provide any accommodation and facilities for travelling to and from SITE to the place of residence to the personnel of CONTRACTOR, deputed at SITE for performing WORK under CONTRACT.
- d) OWNER shall not provide any accommodation and facilities for travelling to and from SITE to the place of residence to the personnel of SUB-CONTRACTOR and VENDOR.



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e) Area for making shed/covered storage for storing EQUIPMENT

6.0 CHANGES IN WORK/CHANGE ORDER

- **6.1** OWNER/FEDO shall have the right to request in writing changes in WORK within the scope of CONTRACT. When the request for a change in WORK by OWNER/FEDO has been agreed and complied by CONTRACTOR, CONTRACTOR's obligations under CONTRACT shall remain unaffected unless otherwise agreed.
- On each request for a CHANGE IN WORK, CONTRACTOR shall promptly inform OWNER in writing whether this request will fall within the provision of CONTRACT. If this request does not fall under the provision of CONTRACT and CONTRACTOR has to incur additional expenses, then CONTRACTOR shall promptly submit a cost estimates, and terms of payment for making the requested change in WORK together with the details of any variation required to be made to any of CONTRACTOR's or OWNER's obligations and/orguarantees.
- **6.3** If in CONTRACTOR's opinion fulfilment of any of its obligations under CONTRACT would be jeopardised by a CHANGE IN WORK requested by OWNER, then CONTRACTOR shall explain in writing to OWNER the reasons for not accepting these changes within thirty (30) days of receipt of OWNER's written request.
- **6.4** OWNER and CONTRACTOR shall agree upon the basis and terms of the CHANGE IN WORK in writing.
- **6.5** It is understood that no change shall become effective and no change will alter the scope of WORK until all of the matters referred to in this Clause 6 have been mutually agreed upon in writing by OWNER and CONTRACTOR.
- **6.6** It is agreed by both parties that the following changes shall not be considered a CHANGE IN WORK in the meaning in this Clause:
 - Minor changes requested by OWNER/FEDO and accepted by CONTRACTOR which do not involve any substantial additional cost or man-hour effort, and have no effect on contractual completion period, and/or
 - b) Changes in CONTRACTOR'S WORK required on account of CONTRACTOR not having included any item of EQUIPMENT or WORK which, in the opinion of OWNER / CONTRACTOR is necessary for the normal, safe and continuous operation of PLANT.
 - C) Any change necessitated due to requirements of prevalent laws in India.

7.0 MECHANICAL COMPLETION, ACCEPTANCE OF PLANTS AND FACILITIES

"MECHANICAL COMPLETION" shall mean completion of erection to such an extent that the PLANT is ready for COMMISSIONING. It shall mean the date on which the PLANT is ready for acceptance of feed of Ammonia and other inputs for COMMISSIONING. This



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shall happen when:

- a) The EQUIPMENT capable of producing to rated capacities are installed, aligned and grouted (wherever applicable) in accordance with drawings, specifications as per finally approved P&I Diagrams after HAZOP Studies and in accordance with all applicable codes, and laws.
- b) All EQUIPMENTS are hydrostatically/pneumatically tested in accordance with Technical Specifications.
- c) Compressor, Pumps, Machinery etc. are cold aligned. Couplings are assembled and guards installed.
- d) Instruments, control system, instrument cable, safety interlock are installed, inspected and such nonoperating checks are made as to ensure operability in the manner required for the process application. Instrument air lines are checked for correct hook up. Air lines are leak tested.
- e) Relief valves are installed prior to this, they will have been checked by the CONTRACTOR in the CONTRACTOR's shop.
- f) Piping is hydrostatically or pneumatically tested in accordance with the specifications. Special treatment such as chemical cleaning is done as required by drawing or specifications. Suction screens are installed and test blinds are removed. Spring support anchors and guide are checked for removal of all shipping locks.
- g) The electric system is installed and tested in accordance with and to the extent required by electrical specifications. All wiring is checked for correct hook up. Motor rotation is checked. All power system protective devices are set.
- h) Insulation and drying out are completed to the extent necessary to permit start of commissioning and start up.
- i) Pipe support system installed as per drawings.
- j) Painting is completed. EQUIPMENT /MACHINERY, piping duly marked and labeled.
- k) Safety equipments, systems are installed and checked for operations. Effluent management and treatment systems are installed and operational.
- PRECOMMISSIONING has been completed. Precommissioning shall mean all functional tests and preparation of plant are completed so that it is capable of operating on a continuous basis at or near rated capacity for carrying out commissioning activities.
- m) The PLANT is ready to take feed.
- n) Minor items/activities being part of the scope of work of Contractor but not affecting the safe commissioning and operation of Plant shall be listed in mutually agreed Mechanical Completion Punch lists, to be completed before Preliminary Acceptance of Plant.

CONTRACTOR's liabilities for the Performance Guarantees given for the PLANTS and Facilities in respect of capacity, consumption, product quality and pollution level shall be discharged only when the PERFORMANCE AND GUARANTEE TESTS as stipulated in Part-II, Technical of



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NIT have been successfully carried out as per acceptance criteria specified below and OWNER has issued PRELIMINARY ACCEPTANCE CERTIFICATE.

PRELIMINARY ACCEPTANCE shall mean that following milestones have been achieved (i) MECHANICAL COMPLETION is achieved, (ii) PRECOMMISSIONING and COMMISSIONING of the PLANT have been accomplished, iii) the Sustained Load Test has been passed (iv) the PLANT has successfully passed all PERFORMANCE & GUARANTEE TESTS and is in compliance with all applicable Laws (v) OWNER has Accepted the Plant or has been deemed to have accepted the PLANT as per the terms of contract (vi) CONTRACTOR and OWNER agree that the PLANT is ready for normal continuous operation (vii) all Government/ statutory approvals required to operate and maintain the PLANT have been obtained (viii) OWNER has confirmed that the PLANT conforms with the requirement under the contract (ix) OWNER has received all operations, maintenance, and spare parts manuals and documents necessary to operate and maintain the PLANT in a safe, efficient and effective manner (x) all special tools and spare parts purchased by CONTRACTOR as provided herein have been delivered to OWNER; and (xi)CONTRACTOR has completed the training program of OWNERS personnel as required under this CONTRACT (xii) Owner has received process license and all documents, titles, licenses etc. as applicable/ required hereunder to startup, operate and maintain the plant and (xiii) Owner has issued PRELIMINARY ACCEPTANCE CERIFICATE.

PRELIMINARY ACCEPTANCE CERTIFICATED shall mean that certificate issued by the OWNER to the CONTRACTOR following satisfaction of conditions under PRELIMINARY ACCEPTANCE, the acceptance of which commences the DEFECT LIABILITY PERIOD (x) All demonstration runs have successfully completed.

8.0 PLANT ACCEPTANCE CRITERIA

Subject to fulfilling PERFORMANCE AND GUARANTEE TESTS as per Part-II, Technical Section of NIT, OWNER shall be in readiness to accept the PLANTS. CONTRACTOR shall take all steps to fulfil the provisions of the CONTRACT for OWNER to issue PRELIMINARY ACCEPTANCE CERTIFICATE

9.0 ISSUANCE OF PRELIMINARY/FINAL ACCEPTANCE CERTIFICATE

Within 30 (thirty) DAYs from completing successfully PERFORMANCE & GUARANTEE TESTS by the CONTRACTOR, and CONTRACTOR fulfilling all the obligations under the provision of the CONTRACT, OWNER shall issue PRELIMINARY ACCEPTANCE CERTIFICATE to CONTRACTOR. If OWNER does not issue the certificate, OWNER will provide written notice stating the reasons for refusing to issue the certificate within 60 days of request. On issue of this Certificate by OWNER, CONTRACTOR shall become entitled to receive all payment as per provisions of the



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CONTRACT due to CONTRACTOR subject to CONTRACTOR's fulfilling the obligations stipulated under CONTRACT.

THE FINAL ACCPETANCE CERTIFCATE SHALL BE ISSUED ON COMPLETION OF DEFECT LIABILITY PERIOD. If OWNER does not issue the certificate, OWNER will provide written notice stating the reasons for refusing to issue the certificate within 60 days of request.

FINAL ACCEPTANCE shall mean that date when all of the terms and conditions set forth in the CONTRACT have been satisfied, all liabilities and obligations under this CONTRACT have been discharged, except those specifically to be continued or performed after FINAL ACCEPTANCE, and OWNER has issued the FINAL ACCEPTANCE CERTIFICATE to CONTRACTOR.

FINAL ACCEPTANCE CERTIFICATED shall mean that certificate issued by the OWNER to the CONTRACTOR subject to the compliance of the terms and conditions of CONTRACT at the end of the DEFECTS LIABILITY PERIOD.

10.0 LABOUR AND STAFF

- **10.1** The CONTRACTOR shall make his own arrangement for labour, erection and COMMISSIONING engineers and all other staff required for carrying out the CONTRACT. The necessary permissions from Government of India regarding work permit and visa requirement shall be obtained by the CONTRACTOR.
- **10.2** The CONTRACTOR shall make his own arrangements for providing canteen service to his labour and staff.
- **10.3** The CONTRACTOR shall at his own cost provide office and other accommodation for his staff and workmen. The CONTRACTOR shall also provide communication, transport and medical facilities to his staff and workmen.
- **10.4** The CONTRACTOR shall be responsible for all statutory obligations and any other laws in this regard in force from time to time regarding the employment or conditions of service of CONTRACTOR's labour, workman or employees.
- **10.5** The CONTRACTOR shall observe all safety rules as required under various rules, regulations and laws in India and shall also strictly adhere to safety regulations of OWNER.

11.0 TRAINING OF OWNER'S PERSONNEL

The CONTRACTOR shall provide facilities, for Training of OWNER's personnel as per PART-II TECHNICAL.

12.0 MODE OF CONTRACTING

12.1 Notwithstanding anything stated elsewhere in the CONTRACT documents, the CONTRACT is awarded on lump sum turnkey basis with single source responsibility.



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12.2 The CONTRACT shall be in all respect being construed and governed in accordance with the Indian laws.

12.3 It is clearly understood that the total consideration for the CONTRACT has been broken up into various components only for the convenience of payment of advance under the CONTRACT and for the measurement of deviation or modification under the CONTRACT(s).

13.0 TERMS OF PAYMENT

The billing of the entire price of Materials, price of Services and price of all works shall be done from and to a single point only. The CONTRACTOR shall submit further breakup for various activities through a billing schedule for (a) CIVIL AND STRUCTURAL WORKS AND ITS ASSOCIATED DESIGN AND ENGINEERING SERVICES, b) SUPPLY OF MATERIAL / EQUIPMENT SUPPLIES INCLUDING SPARES FOR START-UP/COMMISSIONING AND MANDATORY SPARES AND ANY OTHER TOOLS AND TACKLES AS REQUIRED and c) DESIGN AND ENGINEERING, FABRICATION / SITE INSTALLATION OF AMMONIA TANK, INSTALLATION OF MECHANICAL, CONTROL AND INSTRUMENTATION (C&I) , ELECTRICAL, AND PROCESS ITEMS, ASSOCIATED DESIGN AND ENGINEERING APPLICABLE, OTHER AUXILIARY WORKS AND SERVICES - which will be reviewed and approved by Engineer-In -Charge within 30 days of submission of complete document in this regard by CONTRACTOR. The CONTRACTOR shall be paid monthly running account bills at stages of completion of individual item/work. Payments shall be released to the CONTRACTOR against contractors certified bills as per the procedure given in the terms of payment.

- 13.1 Subject to the other provisions of the GCC, SCC and Contract documents, payments shall be made as follows:
- 13.1.1 CIVIL AND STRUCTURAL WORKS AND ITS ASSOCIATED DESIGN AND ENGINEERING SERVICES (Maximum limit for quoted prices (capping at 20% (Twenty Percent) of the Lump-sum Price of contract)
 - a) 75% (Seventy Five Percent) on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s) on completion of individual items of work as per approved Schedule of Activities.
 - b) 5% (Five percent) on MECHANICAL COMPLETION
 - c) 5% (Five Percent) on COMMISSIONING
 - d) 15 % (Fifteen percent) on successful completion of PGTR and issue of PRELIMINARY ACCEPTANCE CERTIFICATE
- 13.2.2 FOR SUPPLY OF MATERIAL / EQUIPMENT SUPPLIES INCLUDING SPARES FOR START-UP/COMMISSIONING AND MANDATORY SPARES AND ANY OTHER TOOLS AND TACKLES AS REQUIRED (Maximum limit for quoted prices (capping at 50% (Fifty Percent) of the Lump-sum Price of contract)



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a) 75% (Seventy Five Percent) of the price of material supplied on pro-rata basis on receipt and acceptance of materials as per the approved schedule of supplies / activities.

This payment will be released along with all applicable taxes and on submission of:

- i. Verification of Third Party Inspection certificate as per QAP approved by OWNER along with Test Certificate.
- ii. Tax paid invoices, as per GST Law enabling FACT to take input tax credit.
- iii. Certificate of Verification and Good Condition after receipt of material at site by Owner.
 - · IMPORTED MATERIALS
 - 1) Signed invoice(s)
 - 2) A full set of certified copies of clean bills of lading/airway duly certified by OWNER'S port offices at Kochi and 4 (four) non-negotiable copies.
 - 3) Certificate of country of origin issued by a competent authority
 - 4) Packing list.
 - 5) Third Party Inspection Release Note clearly indicating that material has been inspected and accepted as per QAP approved by OWNER, or waiver certificate issued by OWNER.
 - 6) Insurance Certificate
 - 7) Other documents for availing concessional /zero rate of import duties in India, if any.
 - INDIGENOUS MATERIALS
 - 1) Signed Invoice(s)
 - 2) Packing list.
 - 3) Inspection Release Note by Third Party Inspection Agency.
 - 4) Photocopy of Railway Receipt/LR.
 - 5) Insurance Certificate
- b) 5% upon successful Mechanical Completion of the PLANT.
- c) 5% upon successful commissioning of PLANT
- d) 15 % (Fifteen percent) on successful completion of PGTR and issue of PRELIMINARY ACCEPTANCE CERTIFICATE



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- 13.2.3 DESIGN AND ENGINEERING, FABRICATION / SITE INSTALLATION OF AMMONIA TANK, INSTALLATION OF MECHANICAL, CONTROL AND INSTRUMENTATION (C&I), ELECTRICAL, AND PROCESS ITEMS, ASSOCIATED DESIGN AND ENGINEERING APPLICABLE, OTHER AUXILIARY WORKS AND SERVICES (BALANCE 30% OF THE LUMPSUM PRICE OF CONTRACT))
- a) 75% (Seventy-Five Percent) on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s) on completion of individual items of work as per approved Schedule of activities.
- b) 5% (Five percent) on MECHANICAL COMPLETION of PLANT
- c) 5% (Five Percent) on COMMISSIONING of PLANT
- d) 15 % (Fifteen percent) on successful completion of PGTR and issue of PRELIMINARY ACCEPTANCE CERTIFICATE
- 13.3 Payment terms as described above along with weightages given for Lump Sum Price are shown in the following table. The tabulated terms shall be read in conjunction with the non tabulated payment terms given before the table.

SL	DESCRIPTION	Capping of Lump Sum Price %	Payment Split-up %	Payment Terms, as per Clause 13.0 of SCC	
1	For CIVIL AND STRUCTURAL WORKS AND ITS ASSOCIATED DESIGN AND ENGINEERING SERVICES	20	75	75% (Seventy-Five Percent) on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s) on completion of individual items of work as per approved Schedule of Activities.	
			5	against Successful Mechanical Completion of the PLANT	
			5	5% (Five Percent) on Successful COMMISSIONING of PLANT	
			15	upon successful Performance Guarantee Test Run of PLANT	
2	For SUPPLY OF MATERIAL / EQUIPMENT SUPPLIES INCLUDING SPARES FOR START- UP/COMMISSIONING AND MANDATORY SPARES AND ANY OTHER TOOLS AND TACKLES AS REQUIRED.	50	75	75% (Seventy-Five Percent) of the price of material supplied on pro-rata basis on receipt and acceptance of materials as per the approved schedule of supplies / activities.	
			5	Against successful Mechanical Completion of the PLANT	
			5	upon successful COMMISSIONING of the PLANT	
			15	upon successful Performance Guarantee Test Run of PLANT	



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	DESIGN AND ENGINEERING, FABRICATION / SITE INSTALLATION OF AMMONIA TANK, INSTALLATION OF MECHANICAL, CONTROL AND		75	75% (Seventy Five Percent) on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s) on completion of individual items of work as per approved Schedule of activities.
	CONTROL AND INSTRUMENTATION (C&I) , ELECTRICAL,		5	Against successful Mechanical Completion of the PLANT
3	AND PROCESS ITEMS,	30	5	upon successful COMMISSIONING of the PLANT
	ASSOCIATED DESIGN AND ENGINEERING APPLICABLE, OTHER AUXILIARY WORKS AND SERVICES (BALANCE 30% OF THE LUMPSUM PRICE OF CONTRACT))		15	upon successful Performance Guarantee Test Run of PLANT

- 13.4 Bidder shall furnish the monthly Payment Schedule (S-curve) in line with the price bid.
- All payments shall be released only after finalization of the planning and monitoring documents and Progress Schedule.

13.6 General Conditions for Payment

- 13.6.1 In case the prices are beyond the individual limits mentioned above, then such additional amount above the capped limit shall be raised by Contractor in the final bill and shall be paid to the Contractor in the final bill/invoice only provided the total Lumpsum Price does not increase on account of such payment. Billing schedule and Monthly capped Payment Schedule shall be prepared accordingly.
- 13.6.2 Being an LSTK contract, all payments to the contractor, till FINAL ACCEPTANCE of the PLANT, as per the terms of the contract, for smooth execution of the project (i.e. RA bill, Advance etc.) shall be regarded as payments by way of **advance only** and not as payment for work actually done and completed.
- 13.6.3 All invoices shall be submitted in quadraplicate to the ENGINEER IN CHARGE by the CONTRACTOR. The payment shall be released within 30 days of submission of invoice, except final invoice which shall be paid within 90 days, after making adjustments for mobilization advance, taxes and duties, retention amount, any other recoveries etc. in accordance with the terms and conditions of the contract.
- 13.6.4 Deductions @ 10% will be made against running bills submitted towards interim payments. Out of the 10% retained, 5% can be disbursed against equivalent BG valid till Final Acceptance plus a claim



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period of 6 months. The remaining 5% shall be disbursed after Preliminary Acceptance/ Deemed Acceptance, as applicable.

13.6.5 The payment of 5% against Commissioning will be disbursed subject to Party furnishing equivalent BG of 2% of contract price valid till Final Acceptance plus a claim period of 6 months.

13.7 MONTHLY CAPPED PAYMENT SCHEDULE

- 13.7.1 The Bidder shall furnish, month-wise payment schedule of its LUMPSUM PRICE OF CONTRACT for 20 months project schedule as per the format in the Bill of quantity (BOQ). Bidder to furnish the % (percentage) in respective columns of Monthly capped Payment schedule while submitting the Price schedule/ BOQ.
- 13.7.2 The month-wise phasing of expenditure indicated by Bidder will be used for evaluation and form part of the CONTRACT for capping the monthly payment based on the actual progress of work.
- 13.7.3 Actual payment shall be made by Owner one month after receipt of appropriate invoice except the final payment which shall be made within 90 days, after making adjustments for mobilization advance, taxes and duties, retention amount, any other recoveries etc. in accordance with the terms and conditions of the contract
- 13.7.4 The 'Monthly Payment schedule' shall represent the breakup of the Lump-sum Price of Contract.
- 13.7.5 Payment shall be made as per actual progress achieved in accordance with payment terms given under Special Conditions of Contract with cap at cumulative payment schedule as furnished at 13.7.1 above. OWNER shall not pay CONTRACTOR in excess of capped cumulative payment irrespective of progress achieved. Irrespective to anything contrary given anywhere in the CONTRACT, the above Total cumulative payment made to the CONTRACTOR till any month shall be lower than the Cumulative capped payment schedule furnished in the bid and subject to the specified capping noted for each sections viz sections (a) CIVIL AND STRUCTURAL WORKS AND ITS ASSOCIATED DESIGN AND ENGINEERING SERVICES, b) SUPPLY OF MATERIAL / EQUIPMENT SUPPLIES INCLUDING SPARES FOR START-UP/COMMISSIONING AND MANDATORY SPARES AND ANY OTHER TOOLS AND TACKLES AS REQUIRED and c) DESIGN AND ENGINEERING, FABRICATION / SITE INSTALLATION OF AMMONIA TANK, INSTALLATION OF MECHANICAL, CONTROL AND INSTRUMENTATION (C&I), ELECTRICAL, AND PROCESS ITEMS, ASSOCIATED DESIGN AND ENGINEERING APPLICABLE, OTHER AUXILIARY WORKS AND SERVICES
- 13.7.6 The monthly payment schedule given by the bidder shall be used for bid evaluation as specified in the methodology of evaluation.
- 13.7.7 If the bidder intends to avail mobilization advance as per the tender terms, the same shall be considered in the monthly payment schedule.



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13.7.8 No Deviation shall be allowed in the payment terms including ceilings and milestones stated in this tender.

14.0 MOBILISATION ADVANCE

The CONTRACTOR shall be paid an interest bearing (@ 10% p.a) recoverable Mobilization Advance equivalent to 10% (Ten percent) of the Contract Price divided into two parts.

The first installment of advance shall be upto 5% (Five Percent) which shall be paid subject to fulfillment of the following conditions.

- a) Unconditional acceptance of LOI by the CONTRACTOR and signing of the formal CONTRACT between the OWNER and the CONTRACTOR.
- b) Submission of Bank Guarantee(s) for 110% value of said advance, valid for 3 months beyond DATE OF PRELIMINARY ACCEPTANCE, from any Nationalised / Scheduled Bank in India as per our format with a claim period of six months thereafter. The CONTRACTOR shall at the request of the OWNER suitably extend the validity of the Bank Guarantee (s) for such period or periods as may be required to fully recover the amount of the Advance Payment not recovered before the expiry of the validity of such Bank Guarantee, failing which, without prejudice to any other right or remedy available to the OWNER, the OWNER shall be entitled to encash the Bank Guarantee(s)."
- c) Submission of Bank Guarantee(s) by way of Security Deposit as stipulated in the CONTRACT.
- d) Submission of All-risk including workman compensation Insurance Policies by the CONTRACTOR as required under the CONTRACT.
 - Second installment of advance shall be upto 5% (Five Percent) which shall be paid subject to fulfillment of the following conditions.
- e) Submission of Bank Guarantee(s) for 110% value of said advance, valid for 3 months beyond DATE OF PRELIMINARY ACCEPTANCE, from any Nationalised / Scheduled Bank in India as per our format with a claim period of six months thereafter. The CONTRACTOR shall at the request of the OWNER suitably extend the validity of the Bank Guarantee (s) for such period or periods as may be required to fully recover the amount of the Advance Payment not recovered before the expiry of the validity of such Bank Guarantee, failing which, without prejudice to any other right or remedy available to the OWNER, the OWNER shall be entitled to encash the Bank Guarantee(s)."
- f) Construction of site Office, storage shed, fabrication yard etc. by the Contractor and is ready to start the work to the entire satisfaction of Engineer -in-Charge.
- g) Commencement of work at site **and subject to utilization certificate of first installment** but not earlier than 3 months from the date of disbursal of first installment.

Notes:



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- 1. The CONTRACT PRICE for the purpose of Security Deposit and Performance Bank Guarantee shall be based on initial contract value and would not be revised except in case of change in contract price.
- 2. The advance paid to the CONTRACTOR shall be used only for execution of this CONTRACT and the CONTRACTOR shall satisfy the OWNER in this regard whenever required. If it is found that the said advance has been utilized by the CONTRACTOR in whole or part for any other purpose, the OWNER may at its discretion forthwith recall the entire advance and without prejudice to any other right or remedy available to the OWNER, recover the same by invoking any Bank Guarantee(s).
- 3. Mobilization Advance (inclusive of interest till date of payment) shall be recovered @15% (Fifteen percent) of the bill value starting from the first bill (payment) itself and shall be fully recovered with the payment towards Mechanical Completion.
- 4. The Contractor can reduce the value of the Bank Guarantee furnished towards mobilization advance with the consent of the owner to the extent of the amount recovered from their bills towards mobilization advance.
- 5. Without prejudice to any other rights available with OWNER under the CONTRACT, OWNER shall be free to en-cash the Bank Guarantee for Mobilization Advance on any breach by the CONTRACTOR and utilize the proceeds in any way OWNER deems fit.
- 6. OWNER shall release Mobilization Advance within 21 days of **fulfillment** of these conditions and submission of appropriate invoice by the CONTRACTOR.
- 7. All bank guarantees shall be considered acceptable only on getting confirmation from issuing bank.

15.0 BILLING SCHEDULE

- 15.1 The CONTRACTOR shall provide a billing schedule based on agreed payment terms within 30 days from the effective date of CONTRACT for APPROVAL by the OWNER/FEDO.
- 15.2 Payment of running bills shall be made as per Schedule-G of GCC.

16.0 LIABILITY FOR DEFECTS

- **16.1** If at any time before the PRELIMINARY ACCEPTANCE or during the DEFECTS LIABILITY PERIOD stated below, the PROJECT MANAGER:
 - (a) Decides that any matter is a DEFECT; and
 - (b) as soon as reasonably practicable gives to the CONTRACTOR notice of the particulars of the DEFECT. The CONTRACTOR shall as soon as reasonably predictable time make good the DEFECTS so notified and the OWNER shall so far as may be necessary place the PLANT at the CONTRACTOR's disposal for this purpose. The CONTRACTOR shall, if so required by the PROJECT MANAGER, submit his proposals for making good any DEFECT to the PROJECT MANAGER for hisapproval.



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- **16.2** Subject to clauses 16.5, 16.9 and 16.10, the DEFECTS LIABILITY PERIOD shall be a periodof 12 months from the date of PRELIMINARY ACCEPTANCE.
- 16.3 If any DEFECT arises from any breach of the CONTRACT or otherwise by the CONTRACTOR the CONTRACTOR shall bear his own cost of making good the DEFECT. In the case of any other matter made good by the CONTRACTOR, the work done by the CONTRACTOR shall be the subject of CHANGE ORDER.
- **16.4** The performance guarantees are demonstrated only through the performance tests carried out.

CONTRACTOR shall be available to carry out further test(s) on the repaired/replaced item during the DEFECT LIABILITY PERIOD having the sole purpose to verify that said item is capable of working in compliance with contractual requirements. Such test(s) shall not be intended as a repetition of the performance tests already performed.

If DEFECT is made good after the issue of a PRELIMINARY ACCEPTANCE CERTIFICATE the PROJECT MANAGER may require the CONTRACTOR to repeat any appropriate performance test for the purpose of establishing that the DEFECT has been made good. The CONTRACTOR shall be responsible for the cost of any repeat inspection or test in the event of an inspection or test failure.

- 16.5 If in the course of making good any DEFECT which arises during the DEFECTS LIABILITIES PERIOD and CONTRACTOR repairs, replaces or renew any part of the PLANT, this Clause 16 shall apply to the repair or to that part of the PLANT so replaced or renewed and shall further apply until the expiry of a period of 12 months from the date of such repair, replacement or renewal (the extended DEFECTS LIABILITY PERIOD).
- 16.6 If the CONTRACTOR does not make good with a reasonable time any DEFECT which he is liable to make good under Sub-Clause 16.1 then the OWNER/FEDO may, in addition to any other remedies or relief available to him under the CONTRACT, proceed to do the work, provided that the OWNER/FEDO gives at least fourteen DAYS notice of hisintention.
- 16.7 If the OWNER reasonably requires that any DEFECT notified to the CONTRACTOR under Subclause 16.1 which arises during the DEFECT LIABILITY PERIOD be made good urgently and the CONTRACTOR is unable or refuses to comply within a reasonable time, the OWNER may, in addition to any other remedies or relief available to him under the CONTRACT, proceed to do the work in such a manner as the PROJECT MANAGER may decide, including the employment of a third party.
- 16.8 If the OWNER has made good a DEFECT in accordance with Sub-clause 16.5 or 16.6, the CONTRACTOR shall reimburse the OWNER his reasonable cost of so doing provided that the OWNER gives a notice to the CONTRACTOR of his intention and submits a claim supported by DOCUMENTS. The PROJECT MANAGER and the CONTRACTOR may agree the amount to be paid by the CONTRACTOR, or in the absence of agreement the PROJECT MANAGER shall decide such amount as may be reasonable. Such amount shall be:
 - a) deducted from any money that would otherwise be payable under the CONTRACT; or



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- b) paid by the CONTRACTOR to the OWNER
- 16.9 If the PLANT cannot be used because of a DEFECT to which this Clause 16 applies, the DEFECTS LIABILITY PERIOD, or if applicable the extended DEFECTS LIABILITY PERIOD, shall be extended by a period equal to the period during which it cannot be used. Similarly the DEFECTS LIABILITY PERIOD, or if applicable the extended DEFECTS LIABILITY PERIOD shall be extended by any period wherein the PLANT cannot be used by reason of the CONTRACTOR putting the PLANT into such condition that it passes any relevant performance test or attempting to do so.

16.10 Deleted.

17.0 PERFORMANCE TESTS

- 17.1 Before the start of performance test, the CONTRACTOR is required to carry out the sustained load test as detailed elsewhere in the NIT. The specific guarantees under the CONTRACT in respect of the performance of the PLANT made by the CONTRACTOR which is verifiable by performances tests shall be governed by this Clause 17.
- **17.2** If the CONTRACT provides for the performance of the PLANT to be tested in sections or in parts, Sub-clause 17.3 to 17.11 shall apply as if a reference to the PLANT were a reference to a section or a part.
- 17.3 The performance tests to be carried out on the PLANT shall those specified in Part II, Technical of Tender, Doc. 32686-11-PS-001-PGT PERFORMANCE GUARANTEE TEST. If any unspecified test is subsequently proposed, the CONTRACTOR and the PROJECT MANAGER shall discuss whether such tests should be carried out. If they agree that the test should be carried out, the PROJECT MANAGER shall order the test as a CHANGE ORDER.
- 17.4 The performance test shall be carried out by the OWNER in the presence of CONTRACTORas soon as is practicable using suitably trained and experienced employees and in accordance with the manuals provided by the CONTRACTOR and such other instruction as the CONTRACTOR may give in the course of carrying out such tests. If any instruction conflicts in any way with or significantly adds to the manuals, the CONTRACTOR shall issue it in the form of an amendment. The performance test shall be carried out as far as practicable under the conditions, if any, detailed in the specification forming part of the CONTRACT, which sets out the technical definition of the PLANT.
- 17.5 The CONTRACTOR shall give a notice to the PROJECT MANAGER his readiness to carry out the performance tests, including a proposal for the time at which the tests would commence. The CONTRACTOR shall then confirm, at least Seven DAYS before the commencement of the performance tests.
- **17.6** Every performance test shall be carried out to completion unless the PROJECT MANAGER or the CONTRACTOR shall order it to be stopped because its continuance would be unsafe or unacceptable to either party.



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17.7 If the PLANT fails to pass any performance test or if any performance test is stopped before its completion such test shall, subject to Sub-clause 17.9 and 17.10, be repeated as soon as practicable thereafter. After failure of 3 trials of performance tests, OWNER shall have the option to operate the plant, whereupon care and custody of the Plant shall be transferred to Owner. The OWNER shall then exercise the option when to make adjustments and modifications by the CONTRACTOR to any part of the Plant before the repetition of any performance test.

Accordingly, Owner will have the right to defer corrective action by CONTRACTOR and CONTRACTOR will have the right for extension of time by such number of days of deferment.

The OWNER shall permit to CONTRACTOR to make adjustments and modifications to any part of the Plant before the repetition of any performance test and shall, if the CONTRACTOR reasonably requires, shut down any part of the PLANT for such purpose and restart it after completion of the adjustments and modifications, which shall be made by the CONTRACTOR with all reasonable speed. The timing of such shutdown shall be agreed between the CONTRACTOR and the PROJECT MANAGER.

The CONTRACTOR shall, if so required by the PROJECT MANAGER, submit to the PROJECT MANAGER for his approval details of the adjustments and modifications which he proposes to make.

The CONTRACTOR shall make such adjustment and modifications at his own cost.

- **17.8** The result of the performance tests shall be compiled and evaluated jointly by the OWNER or the PROJECT MANAGER and by the CONTRACTOR.
- 17.9 If for reasons which are the responsibility of the CONTRACTOR the PLANT does not pass the performance test, the OWNER shall thereafter shall be free to operate the PLANT as he sees fit, provided that the results of the performance tests are within the limits for the application of PERFORMANCE DEFICIENCY DAMAGES as per Doc. 32686-11-PS-001-PGT of Part-II, Technical attached. Upon payment or allowance of such sum the CONTRACTOR shall become entitled to the issue of PRELIMINARY ACCEPTANCE CERTIFICATE stating the applicable PERFORMANCE DEFICIENCY DAMAGES have been paid in respect of shortfall in performance. CONTRACTOR shall be released from liability with respect to PERFORMANCE AND GUARANTEE TEST upon payment of PERFORMANCE DEFICIENCY DAMAGES.

If the results of the performance tests are outside the limits for application of PERFORMANCE DEFICIENCY DAMAGES specified in the CONTRACT, OWNER may at his option:

- a) instruct the CONTRACTOR to investigate or to co-operate with the PROJECT MANAGER or others in the investigation of the reasons for the shortfall in the performance;
- b) instruct the CONTRACTOR to propose remedial measure and work necessary to correct the shortfall whether as the result of any such investigation or not;



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and/or

c) recommend the CONTRACTOR to carry out whatever remedial measures and work necessary to correct the shortfall

Thereafter the PROJECT MANAGER may require that a performance test be repeated, the result of which shall be subject to this Sub-clause 17.9.

The CONTRACTOR shall bear cost of work undertaken in accordance with (a), (b) or (c) above.

- **17.10** If for reasons which are the responsibility of the CONTRACTOR:
 - the results of any performance test are outside any limits specified in Part-II,
 Technical
 - (b) within the period from the date of agreed period of Extended Performance Test Period the CONTRACTOR is unable to bring the performance of the PLANT within the limit specified in Part-II, Technical as demonstrated by a repeat performance test or tests whether or not having followed the provisions of (a), (b) and (c) of Sub-clause 17.9;

The provisions of sub clause 17.11 shall prevail

If during the Extended Performance Test Period the performance of the plant is brought within the limits of PERFORMANCE DEFICIENCY DAMAGES the liability of the CONTRACTOR shall be limited to the payment of PERFORMANCE DEFICIENCY DAMAGES.

17.11 After failure of 3 trials of performance tests (to be completed within a maximum period of 90 days from first trial), OWNER shall have the option to take over the plant, whereupon care and custody of the Plant shall be transferred to Owner. The OWNER shall then exercise the option to get the appropriate rectification in the PLANT undertaken from Third Party at the risk and cost of CONTRACTOR including but not limited to any modifications, alterations, or additions. In such case DEFECT LAIBILITY PERIOD shall start from the date the PLANT is fully rectified and accepted by the OWNER. OWNER shall have the option to encash the Bank Guarantees submitted by the CONRACTOR. Notwithstanding anything to the contrary, the Contractor shall be liable to pay the Mutually Agreed Damages for Delay till such time all the performance tests are successfully completed.

Further if the performance parameters are within the range of applicable damages then the CONTRACTOR will be allowed only three (3) trials to pass the performance guarantee test upon which Owner will have the right to recover the PERFORMANCE DEFICIENCY DAMAGES related to Works Cost Guarantee.

18.0 MUTUALLY AGREED DAMAGES (MAD) FOR DELAY IN COMPLETION

Bidder shall be required to complete the WORK under the CONTRACT so as to achieve the guaranteed completion date in accordance with the following milestones:



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NEW 10000 MT DOUBLE WALL DOUBLE INTEGRITY AMMONIA						
STORAGE TANK AND ASSOCIATED FACILITIES						
Α	Mechanical Completion 18 Months from the Effective Date of					
		Contract				
В	Preliminary Acceptance	20 Months from the Effective Date of the				
	, ,	Contract				

Effective Date of Contract shall mean the date of issue of LOI (Letter of Intent)/ Work to Proceed Notice issue by OWNER/ Engineer–in–Charge, whichever is later.

Contractor agrees that Preliminary Acceptance will be achieved within 20 months from the Effective Date of the Contract. In the event the CONTRACTOR fails to achieve PRELIMINARY ACCEPTANCE on or before the Guaranteed Completion date, then the CONTRACTOR shall pay to the OWNER Mutually Agreed Damages (MAD) at the rate of 0.50% of the total Lump-sum price of contract per week of delay or part thereof subject to a maximum of Seven and Half Percent (7.50%) of the total LUMPSUM PRICE OF CONTRACT (excluding taxes).

Even if Mechanical completion of the project is achieved on time, but preliminary acceptance of the project gets delayed due to reasons attributable to the Contractor, then Mutually Agreed Damages (MAD) at the rate as above is recoverable by the OWNER from the CONTRACTOR.

If the contractor fails to achieve Mechanical Completion within the completion time stipulated above due to reasons attributable to the contractor, Mutually Agreed Damages at the rate of 0.50% of the total Lump-sum price of contract per week of delay or part thereof will be provisionally withheld /deducted on a pro-rata basis from the contractor's invoices and/or any other payments due to the contractor subject to a maximum of Seven and Half Percent(7.50%) of the total LUMPSUM PRICE OF CONTRACT (excluding taxes).

However, if Mechanical completion of the project is delayed but Preliminary acceptance of the project is completed within the specified period, then Mutually agreed Damages (MAD) for delay shall not be applicable for the LSTK project. In such a case, any amount provisionally withheld/ deducted against MAD towards delay in mechanical completion will be released.

The CONTRACTOR agrees that the work shall be commenced and carried on at such points, and in the order of precedence and at such times and seasons as may be directed by the OWNER in accordance with the schedule for the completion of work as outlined in the CONTRACT. The CONTRACTOR declares that he has familiarized himself with the site and rights of way, ground conditions, with all the local conditions, and with all the circumstances which may or are likely to affect the performance and completion of the work and that he has allowed for such conditions in the preparation of this schedule. The progress of work shall be checked at regular monthly intervals and the percentage progress achieved shall



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be commensurate with the time elapsed after the award of the CONTRACT.

However, it is not incumbent upon the OWNER to notify the CONTRACTOR when to begin or to cease or to resume work, nor to give early notice of the rejection of a faulty work, nor in any way to superintend so as to relieve the CONTRACTOR of responsibility of any consequence of neglect or carelessness by him or his subordinates.

The Parties acknowledge that actual damages for Contractor's delay in achieving Preliminary Acceptance beyond the Guaranteed Completion Date, are difficult to determine and that the MAD set forth in this Section are reasonable and appropriate measures calculated in a best efforts attempt to quantify Owner's actual losses associated with such a delay and are not a penalty or consequential damages for losses sustained by Owner as a result of such delay.

Notwithstanding anything to the contrary contained in this CONTRACT and without prejudice to the rights of OWNER under this CONTRACT and the entitlement to the said pre-estimated MUTUALLY AGREED DAMAGES and in addition and not in derogation or substitution thereof, OWNER shall be entitled to terminate this CONTRACT in whole or in part without being liable to CONTRACTOR in any manner whatsoever or to have the uncompleted portion of WORK to be executed/performed pursuant hereto by CONTRACTOR completed/executed/performed at the risk and cost of CONTRACTOR and without being liable to CONTRACTOR in any manner whatsoever in the event of (a) despite 30 DAYS notice in writing, CONTRACTOR failing to commence to take necessary counter measure in order to complete/execute/perform all or any part of WORK to be completed/executed/performed pursuant hereto by CONTRACTOR within the GUARANTEED COMPLETION DATE or as extended in accordance with the provisions hereof by OWNER OR (b) CONTRACTOR fails to achieve PRELIMINARY ACCEPTANCE for such time that MAD for delay reach maximum permissible limit of 7.5 % of the Lumpsum Price of Contract.

Applicable GST rules shall be considered on the amount of MAD. GST at the prevailing rate, if applicable on MUTUALLY AGREED DAMAGES shall be recovered extra from the Contractor on the amount of such MUTUALLY AGREED DAMAGES levied as per the contractual terms. Owner shall raise separate tax invoice for recovery of MAD along with applicable GST.

The decision of the owner on the applicability of MAD shall be final and binding on the contractor.

19.0 DELETED

20.0 GOVERNMENT OF INDIA NOT LIABLE

It is expressly understood and agreed by and between the CONTRACTOR and the OWNER



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that the OWNER is entering to this agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that the Government of India is not a party to this agreement and has no liabilities, obligations or rights thereunder. It is expressly understood and agreed that the OWNER is an independent legal entity with power and authority to enter into contracts, solely on its own behalf under the applicable Laws of India and General Principles of Contract. The CONTRACTOR expressly agrees, acknowledges and understands that the OWNER is not an agent, representative or delegate of Government of India. It is further understood and agreed that the Government of India is not liable for any acts, omissions, commissions, breaches or other wrongs arising out of the CONTRACT. Accordingly, CONTRACTOR hereby expressly waives, releases and forgoes any and all actions or claims, including cross claims or counter claims against the Government of India arising out of this CONTRACT and covenants not to sue the Government of India on any matter, claim and cause of action or thing whatsoever arising of or under this CONTRACT.

21.0 SETTLEMENT OF DISPUTES AND ARBITRATION

21.1 If the Contractor is not a Central Public Sector Enterprise/Central Government Department in India:

If any dispute arises out of or relating to or in connection with this CONTRACT, between the CONTRACTOR and the OWNER/FACT, the same shall be amicably settled through mutual discussions, failing which, the unresolved dispute(s) shall be referred to arbitration in accordance with the provisions of the Arbitration and Conciliation Act, 1996, as amended from time to time. The number of Arbitrator shall be one. The venue of the Arbitration shall be at Ernakulam and the proceedings shall be in ENGLISH.

21.2 If the CONTRACTOR is a Central Public Sector Enterprise or Central Government Department in India:

In the event of any dispute or difference relating to the interpretation and application of the provisions of this contract(s) between Central Public Enterprises (CPSEs)/Port Trusts interse and also between CPSEs and government departments / Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute/ difference shall be taken up by either Party for resolution through AMRCD as mentioned in DPE OM No. 4(1)2013-DPE(GM)/FTS-1835 dated 22.05.2018."

21.3 Any legal proceedings relating to or in connection with this CONTRACT shall be limited to the exclusive jurisdiction of the High Court of Kerala.

22.0 CONCESSIONAL RATE OF CUSTOMS DUTY:-

22.1 Being a project for setting up of a new fertilizer plant, OWNER is entitled to Customs Duty Concession at 5% as per Notification issued by Department of Revenue, Ministry of Finance, in exercise of powers conferred by Sub Section 1, Section 25 of the Customs Act 1962 and subsection 12 of section 3 of Customs Tariff Act 1975. It is the responsibility of the CONTRACTOR to make necessary arrangement, support, and assistance to avail the said



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Customs Duty concession and pass the benefit to the OWNER in all imported goods / items on which the said benefit is available.

It is the responsibility of the CONTRACTOR to get all the applicable benefits of deemed export available to the LSTK project, as per prevailing Foreign Trade Policy. The CONTRACTOR shall submit the details of benefits considered in the bid and also inform the details of documents to be submitted by the owner for availing all these benefits to the project.

In case of Imports of goods from a foreign country by LSTK contractor, the invoice on such imports are to be issued in such a manner that the concessional rate of Customs Duty as prescribed under Project Import Regulations can be availed of and passed on to the owner. Such concession should be factored in the lumpsum price quoted

IMPORTANT: Before Price Bid opening, the BIDDERS shall be required to give PRICE BREAK UP IN % OF TOTAL LUMPSUM PRICE FOR the SUPPLY of IMPORTED MATERIALS in the following format.

Details of each imported materials required for incorporation to set up 1000 MTPD NPK Plant and Associated Facilities complete in all respects including Spares shall be furnished.

	ITEM DESCRIPTION	% of Lump sum Price quoted	Basic Custom Duty rate	Soc. Welfare Cess on Basic Custom Duty	IGST on Custom Duty rate	Any other charge* in % of lump sum quote.
1						
2						

^{(*} Please give details on other charge, if any)

The above breakup shall be considered for deducting / passing on benefit to FACT in case of Import is on concessionary customs duty/ deemed export.

23.0 RISK COVERAGE

23.1 Contractor shall arrange and procure an all risk coverage Insurance policy covering the total work order value awarded. A copy of the policy document shall be made available to FACT/FEDO.

24.0 MAXIMUM OVERALL LIABILITY



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The maximum overall liability under the CONTRACT shall be limited to 15 % (Fifteen percent) of LUMPSUM PRICE OF CONTRACT, excluding (a) liabilities for Make Good by the CONTRACTOR and (b) liabilities for extra cost incurred due to Termination of CONTRACT and carrying out balance work at the risk and cost of the CONTRACTOR, reengineering, make good, mechanical warranty and patent infringement as per relevant Clauses of CONTRACT for which the liabilities are unlimited.

Also Liabilities on account of gross negligence, willful misconduct and violation of law by CONTRACTOR or any of it's SUBCONTRACTOR shall also be Unlimited.

CONTRACTORIIS liability under the CONTRACT shall in no event whatsoever extend to indirect and or consequential damages or losses such as but not limited to Loss of Revenue, Loss of Contract and Loss of Production.

Except in cases of criminal negligence or willful misconduct, "Neither OWNER nor CONTRACTOR shall under any circumstances be liable in respect of any indirect or consequential loss or loss of business or loss of profit suffered by the other party in connection with or arising out of CONTRACT, provided that this exclusion shall not apply to any obligation of the CONTRACTOR under PRICE REDUCTION Clause. Also, whether under the CONTRACT, in tort or otherwise, this clause shall not apply to the cost of repairing or replacing the defective equipment, rectification works etc. attributed to the contractor and covered in the conditions of order, any breach by the CONTRACTOR of any statutory duty during performance of the contract or to any obligation of the CONTRACTOR to indemnify the OWNER with respect to patent infringement or to any obligation of the contractor under guaranteed consumption norm/s.

25.0 DEEMED ACCEPTANCE

In case, COMMISSIONING and/or proving of PERFORMANCE AND GUARANTEE TESTS of the PLANT is delayed beyond 12 months from MECHANICAL COMPLETION due to the reasons solely attributable to the OWNER, then:

- a) Contractor shall provide the procedures to be implemented for preservation of the Project and assist Owner in the implementation thereof, at Owner's cost; and
- b) Owner shall Take Over the Project; and
- c) The Defects Liability Period shall start; and
- d) Owner shall pay to Contractor the balance amount payable against Performance Guarantee Test, after deducting the estimated cost for conducting PGTR. on furnishing an additional Bank Guarantee of equivalent amount (which will be in addition to Security Deposit and other applicable guarantees) valid for 12 months from the date of release of payment with a claim period of six months thereafter.
- e) Contractor shall carry out the uncompleted and unperformed performance test(s) when the conditions for doing the same will occur, provided that prior notice to that effect is given by



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Owner to Contractor at least one (1) Month in advance and in any event not later than Twenty Four (24) Months from the date of Mechanical Competion.

- f) Before carrying out such Test(s) as in clause (e) above, Contractor shall be allowed to thoroughly inspect the Project or any part thereof and to make such arrangements which are necessary for the safe carrying out of said Test(s).
- g) Expenses for such arrangements shall be decided by a committee consisting of senior officers of the Owner and Contractor within thirty (30) Days of demand.
- h) In case of Deemed Acceptance, a reasonable cost for conductance of PERFORMANCE AND GUARANTEE TEST shall be worked out mutually and shall be retained by the Owner. Payment against Preliminary Acceptance less the aforesaid retention amount shall be released upon Deemed Acceptance of the plant. On successful completion of the PERFORMANCE AND GUARANTEE TEST by the CONTRACTOR, the retained amount shall be released.

DEEMED ACCEPTANCE clause shall not be applicable in case reasons solely attributable to the OWNER are resolved before the completion of 12 months from MECHANICAL COMPLETION and COMMISSIONING and PERFORMANCE AND GUARANTEE TEST is started within 12 months from MECHANICAL COMPLETION. In that case remaining activities including COMMISSIONING / PERFORMANCE AND GUARANTEE TESTS shall be completed as per the terms & conditions of the CONTRACT and security-cum-performance bank guarantee shall be extended, accordingly, by the CONTRACTOR so as to ensure minimum validity of 12months from the date of PRELIMINARY ACCEPTANCE with a claim period of six months. thereafter.

26.0 SUBCONTRACTOR/ VENDOR AND MANUFACTURE WARRANTIES

- a) CONTRACTOR shall ensure that all equipment and other items used in connection with the performance of the WORK or incorporated in the PLANT will be purchased in compliance with CONTRACT Technical Specifications and Requirements in order to allow the Plant to achieve the Guarantee and Warrantee as provided for in the CONTRACT, unless otherwise agreed with OWNER.
- b) CONTRACTOR shall, for the protection of the OWNER, obtain all available Guarantees, Warranties etc. on all equipment and other items used in connection with the performance of the WORK or incorporated in the PLANT, from SUB-CONTRACTORS, vendors, manufacturers of equipment etc. Guarantees, Warranties etc. so obtained shall not be amended, modified or otherwise discharged without the prior written consent of OWNER. Warranties shall be in the joint names of OWNER and CONTRACTOR. Any residual warranty



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from sub-contractor/vendor shall be passed to the OWNER after expiry of DEFECT LIABILITY PERIOD.

- c) Neither CONTRACTOR nor its SUB-CONTRACTORS/ VENDORS, nor any person under the control of either thereof, shall take any action which could release, void, impair or waive any Guarantee or Warranty on EQUIPMENT or services relating to the PROJECT or the WORK. Any residual warranty from subcontractor/ vendor shall be passed to the OWNER after expiry of DEFECT LIABILITY PERIOD. For the avoidance of doubt, warrantee/guarantee of any equipment/material/work etc. shall be at least upto the end of DEFECT LIABILITY PERIOD irrespective of date of its procurement by the CONTRACTOR from its SUB-CONTRACTOR etc.
- d) Nothing in this clause shall derogate from the obligations of CONTRACTOR to provide the Guarantees and Warranties described in, and to comply with the provisions here in above.
- e) CONTRACTOR shall, based on its past professional judgement enforce all guarantees and warranties provided hereunder to the fullest extent thereof till such time they are transferred to the OWNER pursuant to sub-clause (g) below .Upon the expiration or termination of any of the guarantees or warranties provided by CONTRACTOR pursuant to the CONTRACT, the CONTRACTOR shall assign, and hereby assigns, effective as of such date, or otherwise make available, to OWNER all of ONTRACTOR's rights under all such SUBCONTRACTOR's residual Guarantees and warrantee as per the above and shall deliver to OWNER copies of all contracts providing for such guarantees and warranties.
- f) CONTRACTOR, in accordance with the CONTRACT, shall require all SUBCONTRACTORS/ VENDORS to be covered by the insurance specified in the CONTRACT, during the time in which they are engaged in performing WORK.
- g) CONTRACTOR shall require all SUB-CONTRACTORS/VENDORS to release and waive any and all rights of recovery against OWNER including its affiliates, subsidiaries, employees, successors, permitted assigns, insurers and underwriters) and against CONTRACTOR and all other SUB-CONTRACTORS/ VENDORS which the releasing SUB-CONTRACTOR/ VENDOR may otherwise have or acquire, in or from or in any way connected with any loss covered by policies of insurance maintained or required to be maintained pursuant to this the CONTRACT (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance. CONTRACTOR shall further require all SUB-CONTRACTORS/VENDORS to include in all policies of insurance maintained by the SUBCONTRACTORS/ VENDORS clauses providing that each underwriter shall release and waive all of its rights of recovery, under subrogation or otherwise, against OWNER, its promoters, affiliates, subsidiaries, employees, successors, permitted assigns,



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insurers and underwriters, and against CONTRACTOR and all other SUB-CONTRACTORS/VENDORS.

h) OWNER shall not be deemed by virtue of the CONTRACT to have any contractual obligation to or relationship with any SUB-CONTRACTOR/VENDOR.

27.0 DELETED

28.0 CURRENCY OF BID AND MODE OF PAYMENT

All Bidders are required to quote in INR (Indian Rupees) only. No deviation shall be allowed on this.

29.0 DELETED
