

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu, and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 DTD 17.09.2026
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THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED
CORPORATE MATERIALS
FACT PD-ADMINISTRATION BUILDING
UDYOGAMANDAL, KOCHI- 683 501 (KERALA)
Tel: (0484)-256 8345/8273
E-mail: jayalumarp@factltd.com, aneeshya@factltd.com
Website: <http://www.fact.co.in>

Tender for Transportation of Liquefied Ammonia Gas (LAG) by Barge
[Enquiry No. MM/181/E34198 dated 17.09.2026]

e-Tenders [online bidding (two part)] are invited for transportation of Liquefied Ammonia Gas by self-propelled Barge (approximate quantity 75,000 MT) using bullets provided by FACT from FACT's storage tank at Willingdon Island, Cochin Port to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu, and from FACT UC Petro to FACT CD, for one year, through <https://e-procure.gov.in>.

Any change / Extensions to this tender will be informed only through our website / CPP e-procurement portal and will not be published in newspapers.

Pre bid meeting will be held at 2:00 PM on 28.09.2026 at FACT Corporate Materials Department.

Due date/ time for submission of bids is **08.10.2026/ 3:00 PM.**

sd/-

Asst. General Manager (Materials)-T&S

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date:
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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NOTICE INVITING e-TENDER

The Fertilisers and Chemicals Travancore Ltd (FACT), invites online bids (two part) from financially sound and experienced barge transport contractors meeting the pre qualifications specified in Annexure II, for transportation of Liquefied Ammonia Gas (LAG) in suitable barge using bullets provided by FACT from FACT's storage tank at Willingdon Island, Cochin Port to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu, and from FACT UC Petro to FACT CD for a period of one year from the date of commencement of work as per the Letter of Intent/Work Order, whichever is earlier, as per details furnished in the tender documents enclosed with this enquiry.

PLEASE NOTE THAT ONLY ONLINE BIDS WILL BE CONSIDERED AGAINST THIS TENDER

Visit <https://www.eprocure.gov.in> for online bid submission

1.0 General Information

Enquiry No.	MM/181/E34198 dated 17.09.2026
Mode of Tendering	TWO PART Part A: Pre-Qualification cum Techno-Commercial Bid Part B: Price Bid
Due date & time for Submission of bids	08.10.2026 / 3:00 PM
Date & Time for opening of Part A of the Bid.	09.10.2026/ 3:30 PM
Contract Period	One Year from the date of commencement of work as per letter of intent /work order.
Name of Work/ Description/ quantity	Transportation of Liquefied Ammonia Gas (LAG) in suitable barge using bullets provided by FACT from FACT's storage tank at Willingdon Island, Cochin Port to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu, and from FACT UC Petro to FACT CD as per details furnished in the tender documents enclosed with this enquiry.
EMD	Rs. 1,00,000/- , to be remitted as per clause 7.0 of Instruction to Bidders (Annexure I)
Pre-bid meeting	The Pre bid meeting will be held at 2.00 PM on 28.09.2026 at FACT Corporate Materials Department. <i>The meeting will be conducted in hybrid mode.</i> Bidders can attend either in person at the venue or online using the Google Meet link provided below: Video call link: https://meet.google.com/ayk-nqch-odb

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 2
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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Contacts for tender details	1) Mrs. Aneeshya Venugopal, Tel: +91 484 256 8273, e-mail: aneeshya@factltd.com 2) Mr. Jayakumar P, Tel: +91 484 256 8345, e-mail: jayakumarp@factltd.com
Contact for e-Tender helpline	1) e-Tender Helpline: Mr. Ajino Anandh, Tel: +91 0484 256 8374, 9497334230, email:ajinoanandh@gmail.com

2.0 **TENDER DOCUMENTS (e-TENDER)**

Visit our website www.fact.co.in or Central Public Procurement Portal <https://www.eprocure.gov.in> for tender documents. Bid submission shall be in electronic form through <https://www.eprocure.gov.in> only. See Annexure I 'Instructions to Bidders (e-Tender)'.

3.0 **GENERAL**

- 3.1 When bids are received from any proprietorship / firm / company having the same proprietor or one or more partners/Directors in the business organisation of any other party quoting against this tender (hereinafter called Common Firms), such bids shall be considered having been received from only one applicant in different names and the lowest acceptable quotation of such Common Firm shall only be considered for evaluation.
- 3.2 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.
- 3.3 FACT 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 regarding the same shall be final and conclusive.
- 3.4 Partnership firms having common partners will be treated as one Bidder. When bids are received from any proprietorship / firm / company having the same proprietor or one or more partners/Directors in the business organisation of any other party quoting against this tender (hereinafter called Common Firms), such bids shall be considered having been received from only one applicant in different names and the lowest acceptable quotation of such Common Firm shall only be considered for evaluation.
- 3.5 **Integrity Pact:** The bidders shall sign and submit an "Integrity Pact (IP)" to be executed between the bidder and Fertilisers and Travancore Ltd. along with the bid as per Annexure-XI. IP shall be implemented through the following Independent External Monitors (IEMs) for the bid.

1. Shri. Pradeep Kumar Jajoria, Email: pkjajoria@yahoo.com	2. Shri. Arvind Kumar Arora, Email: arvindarora333@gmail.com
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PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 3
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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Note 1: The Integrity Pact signed by the bidder shall be submitted by the bidder along with other documents.

Note 2: In case bidders require any clarification pertaining to the tender please contact the officers at 3.6 below. ***"Kindly note that the Independent External Monitor shall not be contacted for clarifications regarding the tenders."***

3.6 Any further information on technical matters, site familiarisation, if any required by the bidders, can be had from (i) DGM (Technical Services) (Ph:0484-**2723228**) or DGM(P) (0484-**2723641**).

For any other clarification on this enquiry please contact AGM(Materials) T&S, [Phone-0484- 2568345] or Deputy.Manager (Materials)-T&S [Phone No.0484-2568273], CORPORATE MATERIALS, FACT Ltd., FACT PD Administration Building, Udyogamandal PIN-683 501. The bidders are advised to duly get themselves informed of all details they require before submitting their bids.

4.0 EVALUATION OF BIDS

4.1 Bids will be evaluated based on the pre-qualification criteria, Technical Specifications in the TPS, Commercial Specifications and other requirements stipulated in the tender.

4.2 The Price Bid Format (BOQ) shall comprise of five items, out of which the rates for item no 1.1 i.e. Transporting and fixing bullets in the barge (Rs 31,58,100/-) and item no 1.2 i.e. Dismantling bullets from the barge, lifting and transporting the same to the designated location in FACT (CD) on completion of contract (Rs 12,72,498/-) are pre-determined and provided as fixed Lump Sums. Hence, bidders shall quote rates for the remaining three items of work (i.e. item no 2.1, 2.2 & 2.3) in the Price Bid Format (Annexure-VIII). The same has to be confirmed by the bidder while quoting the bid by indicating '**QUOTED**' against all five items of work in the Unpriced Copy of Price Bid format (Annexure VII). Bids not complying with this will not be considered.

4.3 Evaluation of bids and determination of the L1 bidder shall be based on the combined total value of all 5 items of work quoted by the bidder in the price bid format, however the rates for item no 1.1 & 1.2 shall remain fixed. The combined total value as above shall be computed based on the rates quoted by the bidder against each item and the corresponding quantities indicated. A Single Work Order shall be issued for all the items of work. In case more than one bidder becomes L1, the contract will be finalized based on the revised reduced rates to be obtained from the L1 bidders.

4.4 Bidders are required to quote for transportation of LAG utilizing/installing all the 6 bullets of FACT in one or multiple barges.

NOTE:

The Ammonia bullets owned by FACT are now installed in the barge of the current contractor. Hence, the work of transporting and fixing the bullets in the barge (item 1.1 of the BOQ) is not applicable in the case of the current contractor,

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 4
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

if they are awarded the new work order. However, the rates for Dismantling the bullets from the barge, lifting and transporting the same to the designated location in FACT(CD) on completion of new contract (item no 1.2 of the BOQ) shall be as per the new work order rate which is pre-determined in the price bid format.

- 5.0 Pre-bid meeting:** Interested bidders are requested to join the pre-bid meeting at the scheduled time, either offline or online. Also, Interested bidders shall confirm their participation well in advance and may submit the Pre bid queries in advance at least 3 days prior to Pre-bid meeting. Pre bid queries, if any, shall be sent by email to jayakumarp@factltd.com and aneeshya@factltd.com.
- 6.0 The bidder should be familiar with the navigation route. The bidder shall familiarise himself, before quoting, about the details of the work, operating conditions during different seasons of year, etc., collect all necessary data regarding the facilities available at loading points and at unloading points and inspect the canal routes and satisfy himself on all aspects relating to this work which he has to handle and execute for the full contract period and shall make due provisions in his rates for any contingency or difficulty involved in the work covered by this enquiry. Claiming lack of knowledge shall not be a reason for exoneration of the bidder of his contractual obligations, if the contract is awarded to him or for demand for increase in rate.
- 7.0 Bidder may visit the sites of loading and unloading operations for ascertaining the draft available for barge movement at the above loading / unloading points. Bidder may note that the Champakkara Canal and Udyogamandal canal are being maintained by the Inland Water Authority of India (IWAI), and the draft available for movement of barge through these canals may be ascertained by the bidders with IWAI before quoting. Bidders shall offer only barge that are suitable for movement through the above canals and based on the draft available at WI / FACT-CD / UD Jetty. If a bidder has offered barge, which is found unsuitable for movement through the canals and for placing at WI / UD / CD Jetty, on award of contract, it shall be the responsibility of the bidder to arrange and provide suitable alternative barge for the work, at no extra cost to FACT. FACT shall not entertain any claim consequent to the bidder / contractor making such alternate arrangements for the work.

8.0 Issue of Bullets

The bullets shall be issued to the barge operator/s on furnishing an electronic Bank Guarantee (e-BG) of Rs.60 lakh (10 Lakh per bullet) for the 6 bullets. The electronic Bank guarantee shall be submitted within 15 days of award of contract. The e-BG shall be valid till the expiry of the contract with a claim period of six months thereafter.

For THE FERTILISERS AND CHEMICALS TRAVANCORE LTD

ASST. GENERAL MANAGER MATERIALS (T&S)

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 5
	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

List of Enclosures of this NIT is as follows:

Sl. No.	Document	TITLE	No. of Pages
1	Annexure I	Instructions to Bidders (e-Tender)	8
2	Annexure II	Pre-Qualification Criteria for bidders	2
3	Annexure III	Vendor Data Form	4
4	Annexure IV	Technical Procurement Specifications (TPS No. OFF-LAG-AMMB-003-R7).	36
5	Annexure V	Terms & Conditions	10
6	Annexure VI	Compliance Statement	1
7	Annexure VII	Unpriced copy of Price bid format	2
8	Annexure VIII	Price bid format (BoQ)	Separate Excel Sheet
9	Annexure IX	Proforma of Bank Guarantee for Security Deposit	2
10	Annexure X	Proforma of Agreement	1
11	Annexure XI	Integrity Pact	5

(Note: Bidders downloading documents from FACT website may note that Technical Procurement Specifications (TPS) has been attached as separate PDF file).

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 6
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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ANNEXURE - I

INSTRUCTIONS TO BIDDERS

- 1.0 Bidders shall study carefully the complete tender documents viz. NIT with Prequalification criteria, Instructions to Bidders (ANNEXURE-I), Technical Procurement Specifications if any, Terms & Conditions and any other documents forming part of this tender attached herewith. All conditions set out there in shall be binding on the bidders unless conflicting with any conditions expressly stated by FACT while accepting any bid in the event of such acceptance. One signed and scanned copy of the above documents shall accompany their online bids signifying their acceptance of the same. Bidder shall also submit along with his bid Vendor data updation (Declaration) Form, Check list (If applicable) and Compliance Statement duly filled with all details required therein and also attach supporting documents as required.
- 2.0 Before submitting the bid, the bidder shall familiarise himself about the details of the work, operating conditions during different seasons of year, etc., collect all necessary data regarding the facilities available at various points indicated in Special Terms and Conditions, applicable timings, routes etc., and satisfy himself on all aspects relating to this work which he has to handle and execute for the full contract period and shall make due provisions in his rates for any contingency or difficulty involved in the work covered by this enquiry. Claiming lack of knowledge shall not be a reason for exoneration of the bidder of his contractual obligations, if the contract is awarded to him or for demand for increase in rate.
- 3.0 Offers against this NIT shall be submitted online on e-Tendering portal <https://eprocure.gov.in>, with valid digital signature certificate. Offers submitted on any other platform or in any other mode or including e-mails, physical submission of offers etc. SHALL NOT be accepted.
- 3.1 The bidders are requested to register themselves on the above website with their valid digital signature certificate, if not done already. 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. The digital signature certificate shall be arranged by the bidder at his cost. Bidders may refer **Bidders Manual Kit** available on the above website for detailed information and instructions for registration, bid submission etc.
- 3.2 The documents, if any, which necessarily have to be submitted in originals if specified specifically in the enquiry documents, shall be submitted offline. However scanned copies of such documents shall be uploaded along with the offer submitted online.
- 3.3 The cover (s) containing the documents in original etc. to be submitted offline as required in the enquiry documents shall be duly superscribed with enquiry No., due date of enquiry, bidder's name & address and contact details. The documents shall be submitted to the following on or before the due date :

The Asst. General Manager (Materials)T&S, Corporate Materials,

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 7
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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PD Administrative Building, FACT Ltd., Udyogamandal PO,
Kochi – 683 501, Kerala

4.0 SUBMISSION OF BIDS: The bid shall be uploaded with all relevant documents before due date and time in the above portal as given above.

5.0 Bid documents shall consist of Part-A and Part B as detailed below:

5.1 Part A (Pre-qualification-cum-Techno Commercial Bid) shall contain:

1. Documentary proof for remittance of EMD such as scanned copy of EMD instrument (UTR No./Payment receipt challan) as applicable or Claim for EMD exemption with documentary proof.
2. Scanned copies of supporting documents for satisfying Pre-Qualification criteria. Also pl. see 3.2 & 3.3 above.
3. Digitally Signed copies of NIT, Instructions to Bidders (Annexure I) and terms conditions.
4. Scanned copy of Signed & duly filled Vendor Data Updation Declaration Form'
5. Signed and duly filled up Check List for Commercial Terms' (if applicable) and scanned copies of attached documents as detailed in Check list.
6. Scanned copy of Signed & duly filled 'Compliance Statement'
7. Scanned copy of Signed "Un-priced bid indicating "QUOTED" in the applicable columns. Rates shall not be indicated in Un-priced Bid.
8. Scanned copy of Integrity Pact (only if specified in the NIT). Pl. see 3.2 & 3.3 above.

5.2 Part-B: shall comprise of the filled Price bid. The filled price bid ie. BoQ attached to the tender shall be uploaded after filling all relevant details such as name and address of the bidder, rates etc. as applicable.

- 5.3 The priced BOQ shall be uploaded strictly in the format attached, failing which the offer is liable to be rejected. Renaming or changing the format of the BoQ is not permitted and the System will not accept any such changed document.
- 5.4 Fill-in all the relevant fields of the BoQ either in value or as a percentage as specified in the BoQ. Blank field, if any, in the uploaded BoQ shall be considered as Nil (not Quoted). No claim or revisions shall be entertained in this regard.
- 5.5 Bidders shall quote prices in the BOQ only and nowhere else. No other documents shall be enclosed with Price Bid (BOQ).
- 5.6 Rates shall be quoted in the same unit of measure given in the BOQ and shall be considered accordingly.
- 5.7 Bidders shall ensure that all the required documents as per enquiry are uploaded in the System before due date and time. The System does not allow submission of bids or any other document forming part of the bid after due date & time of bid submission. Non-submission of documents or incomplete documents may result in rejection of offers and no communication in this regard will be entertained. FACT reserves the right to reject any bid not submitted as per instructions at their discretion.
- 5.8 Timely submission of offers along with all the relevant documents online is the responsibility of the bidder concerned. The bids may be submitted well in advance to avoid last minute issues like non availability of internet, server not available, power failure etc. FACT shall not be held responsible for bidder's inability to submit documents in time, incomplete submission of offers or non submission of any documents forming part of the offers etc.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 8
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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5.9 Bidders shall meet all expenses in connection with submission of his bid, attending the bid opening, meetings etc.

6.0 BID OPENING:

6.1 **Part-A** of the bids of all bidders who submit their Bids as per the instructions on or before the due date and time shall be opened online, on the specified bid opening date and time. Bids submitted not in conformity with the Enquiry instructions are liable to be rejected without further processing.

6.2 **Part-B** - Price bids of those bidders whose Part-A bid is acceptable, based on pre-qualification and techno-commercial evaluation, only shall be opened online on a subsequent date, on completion of evaluation.

7.0 EARNEST MONEY DEPOSIT:

7.1 **Earnest Money Deposit (EMD)** –shall be remitted online, for the respective amount indicated in the NIT, through 'State Bank Collect' portal using the link given below.

[https://onlinesbi.sbi.bank.in/sbicollect/icollecthome.htm?corpID=9303&categoryName=Earnest%20Money%20Deposit%20\(EMD\)/SD%20Remittance](https://onlinesbi.sbi.bank.in/sbicollect/icollecthome.htm?corpID=9303&categoryName=Earnest%20Money%20Deposit%20(EMD)/SD%20Remittance)

The link is also available on our website www.fact.co.in under the Tenders tab as 'EMD/Security Deposit Payment.'

The bidder shall precisely indicate the Name of the bidder, Tender number and other relevant details while making the online payment through 'State Bank Collect' portal. The payment receipt generated thereon shall be uploaded/ submitted along with with Part-A bid.

7.2 EMD shall also be remitted through RTGS / NEFT. UTR No. / scanned copy of the payment receipt shall be submitted along with the Part-A of the bid.

Details of Bank A/c for remittance of EMD are 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.

7.3 Alternatively, EMD remittance can also be made through the "[Payment Gateway for direct remittances](#)" available in our website.

Bids without EMD or inadequate amount of EMD will be rejected. No interest shall be paid on the EMD. EMD of the unsuccessful bidder will be refunded after awarding the contract. EMD furnished against one enquiry will not be adjusted against any other enquiry.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 9
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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- 7.4 Bids without EMD shall be rejected except in the following cases: EMD will be exempted for Govt. Depts/firms, public sector units, Micro and Small Enterprises (MSE units) registered under MSMED Act (subject to uploading the copy of latest valid Udyam Registration Certificate along with their bid)/ firms registered under NSIC/Khadi Board etc. as per applicable govt. directions, on submission of valid documents in proof of the same.
- 7.5 If any bidder retracts from or without request of FACT revises or amends his bid during its validity period or fails to submit Security Deposit within the stipulated time or fails to execute the required agreement when the contract is awarded or fails to commence the execution of the work on the stipulated date, the EMD furnished shall be liable to be forfeited without prejudice to FACT's other right to claim damages.

8.0 PURCHASE PREFERENCE:

This tender shall be based on MSME order dt. 23rd March 2012, and as amended from time to time, pertaining to Public Procurement Policy in respect of procurement of goods and services, produced and provided by micro and small enterprises (MSE), including special benefits to MSE firms owned by SC/ST and women entrepreneurs, on furnishing relevant documents as proof. Declaration of Udyam Registration Numbers on CPPP is mandatory, failing which bidders will not be able to enjoy the benefits as per PP policy. Bidders will get the benefit of PP policy only if they are MSE bidders at the time of submission of their bids, in proof of which latest valid Udyam Registration Certificate shall be uploaded. Bidders may note that failure to update the relevant information within the period specified in the online Udyam Registration portal will render the enterprise liable for suspension of its MSE status, in which case they will not be eligible to claim PP benefits/EMD exemption.

In divisible tenders, participating MSEs quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than an MSE. Such MSEs shall be allowed to supply atleast 25% (or as applicable) of the total tendered value. In case of more than one such MSE, the supply will be shared proportionately (to tendered quantity). Special provisions extended to certain categories of MSEs as per the order shall also be applicable.

In case of non divisible tenders, an MSE quoting in the price band of L1+15% may be awarded for full/complete work of tendered value, considering the spirit of policy for enhancing the Government procurement from MSEs subject to bringing down of price to L1 by the MSE concerned.

This tender is non divisible.

9.0 DEVIATIONS:

- 9.1 Deviations in the tender clauses shall not be accepted.
- 9.2 FACT reserves the right to reject the offers with deviations without further correspondence.
- 9.3 Bidder shall clearly indicate the time required for mobilisation /commencement of work from the date of receipt of Letter of Intent (LOI) / Work Order.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 10
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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10.0 CONFORMITY:

Bids must conform in all respects with the applicable terms and conditions of this enquiry. Bidder must certify in the compliance Statement that his bid complies with all Enquiry documents and technical specifications.

11.0 Rates:

11.1 Bidder shall quote his lowest rate for the work strictly as per the BoQ (Price Bid format) . Bids not complying with the above are liable to be rejected.

The Un-priced bid shall be submitted along with Part-A bid duly signed by the Bidder, indicating "QUOTED" in the columns. Rates shall not be indicated in Un-priced Bid.

11.2 Bidder shall quote all-inclusive rate for the work, but **exclusive of GST**. GST if applicable, will be payable extra by FACT as per statutory notification.

11.3 The rates quoted in the tender are to hold good for a period of four months from the date of opening of the Pre-Qualification-cum-Techno-Commercial bid (Part-A). If contract is awarded, the work order rates shall be valid for the entire period of contract inclusive of extension / extensions. **No bidder can withdraw his tender or revoke or revise the rates within the aforesaid period of 120 days.** If the bidder withdraws/revokes/revokes OR shows unwillingness to confirm with his offer, the Earnest Money Deposit (EMD) remitted by the bidder against the tender shall be forfeited by FACT, without prejudice to FACT's other right to claim damages.

12.0 SECURITY DEPOSIT:

Please refer clause 2 of 'Standard Terms and Conditions of Contract' attached.

No relaxation/exemption will be given for submission of Security Deposit.

13.0 PURCHASER'S RIGHT:

FACT reserves the right to reject any or all bids without assigning any reason whatsoever. No claims shall lie against FACT on this account and FACT's decision in this regard shall be final and binding on the bidders. FACT reserves the right to negotiate with the lowest bidder.

14.0 CONTRACTOR TO EXECUTE AGREEMENT:

The contractor's responsibility under this contract will commence on the date specified in the Letter of Intent/Work Order. The successful Bidder shall be required to execute an Agreement with FACT, within 15 days of the receipt by him of the Work order issued by FACT for carrying out the work according to the terms and conditions of the contract given along with the Work Order. The Agreement shall be executed on Rs.200/- Stamp paper and shall be in the pro forma as specified by FACT. The provisions contained in

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 11
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

tender papers and other documents exchanged between the Bidder and FACT shall form part of the contract. The Earnest Money Deposit is liable to be forfeited in case the contractor fails to execute the agreement within the stipulated period as mentioned above.

15.0 The bidder shall furnish the following along with the offers.

1. The GST registration Number and details. In the case of Provisional ID, GST Registration Number shall be provided on receipt of the same.
2. Place of supply/Service
3. Address of the supplier/service provider's billing the item if it is different from 2 above
4. GST rates applicable for each item
5. HSN / SAC codes of each of the goods / services quoted

In case of unregistered contractor, a declaration to that effect with reason should be furnished.

FACT's GST No. in the state of Kerala is **32AAACT6204C1Z2**. FACT's GST numbers in other southern states is as follows:

Tamilnadu:	33AAACT6204C1Z0
Karnataka:	29AAACT6204C1ZP
Andhra Pradesh:	37AAACT6204C1ZS
Telangana:	36AAACT6204C1ZU
Puducherry:	34AAACT6204C1ZY

The supplier/contractor shall do the following:

- a) Submit GST compliant tax invoice to FACT along with supply.
- b) Shall ensure uploading the above invoice as per statute &
- c) File monthly returns in time enabling FACT to claim the input tax credit.

GST charged by the supplier/contractor shall be released separately to the supplier/contractor only after filing of (i) the outward supply details & the monthly return on GSTN portal by the supplier/contractor and (ii) on matching the input tax credit to such invoice with the corresponding details of outward supply of the supplier/contractor.

In case FACT incurs any liability (like interest, penalty etc.) due to denial/reversal of such input tax credit in respect of the invoice submitted by the supplier/contractor, for the reasons attributable to the supplier/contractor, the same shall be recovered from the supplier/contractor

Further in case FACT is deprived of the input tax credit due to any reason attributable to the supplier/contractor, the same shall not be paid or recovered if already paid to the supplier/contractor.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 12
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

16.0 TRADE RECEIVABLE DISCOUNTING SYSTEM (TReDS)

Government of India has implemented Trade Receivable Discounting System (TReDS) to address challenges faced by MSMEs in delayed payments from Government buyers. TReDS is an online electronic institutional mechanism for facilitating the financing of trade receivables of MSMEs through multiple financiers. FACT is registered on the TReDS platform by Receivable Exchange of India Limited (RXIL), Mumbai. The MSME vendors can avail the TReDS facility, if they want to.

17.0 GENERAL:

- 17.1 FACT reserves the right to extend without giving any reason, the last date for submission and opening of bid, but such extension will be duly intimated to those who have submitted online. In case the date of bid opening happens to be a day of strike/hartal etc. due to any reasons or happens to be a holiday for FACT, declared due to unforeseen and emergency reasons or due to any tech problems, the bids will be opened at the same time on the next full working day.
- 17.2 FACT reserves the right to make changes in the tender documents, but such changes will be published in our portal as a corrigendum. Bidders are requested to counter check with portal before submitting their bids.
- 17.3 Mere submission of all the documents will not necessarily mean that the Bidder is suitable. Worthiness assessed by FACT will be final and binding on the Bidder.
- 17.4 FACT may relax condition of prior turnover and prior experience (if specified in the Pre Qualification criteria) with respect to Micro & Small Enterprises (MSEs) subject to meeting of quality and technical specifications.
- 17.5 Except in the cases of items/services related to public safety, health, critical security operations and equipment etc., FACT at its discretion may relax the conditions of prior turnover and prior experience (if specified in the Pre Qualification criteria) for Startups recognised by Dept. of Industrial policy and promotion (DIPP) subject to meeting quality and technical specifications, on furnishing copies of relevant certificates / documents in proof of such recognition by DIPP.
- 17.6 All clarification and correspondence related to this enquiry shall be made only in English to the Asst. General Manager(Materials)-T&S, Corporate Materials, PD Administrative Building, FACT Ltd., Udyogamandal – 683 501, Tel : 0484-256 8345; Email:jayakumarp@factltd.com.
- 17.7 All disputes and questions, claims, rights, matters or things, whatsoever, in any way, arising out of or relating to the calling of bids, evaluation of offers, award of contract, change in structure of bids or any other matter relating to finalization of contract are to be referred to the sole Arbitrator who shall be the General Manager [Materials] of FACT. The award shall be binding on both the parties. The bidders are advised to get informed of all details they require regarding the work before submitting their bids.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 13
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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17.8 Work order shall be issued by Asst. General Manager(Materials)-T&S .

18.0 TENDER UPDATES:

Bidders are requested to visit Central Public Procurement Portal (<https://eprocure.gov.in>) regularly for any updates/corrigendum on the tender, including extension of due date, if any. No other mode of communication shall be made in this regard.

19.0 MAKE IN INDIA

19.1 Purchase preference shall be applicable only to Class 1 local suppliers (suppliers or service providers whose goods, services or works offered for procurement has local content equal to or more than 50%) 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.

19.2 For the purpose of extending purchase preference as in Cl. 19.1 above, margin of purchase preference shall be 20% or as defined in the above Orders, unless specified otherwise in the Enquiry.

19.3 When supply / service as per the tender is divisible in nature, Class 1 Local Suppliers quoting within the price band prescribed in 19.2 above shall be allowed to supply / execute a portion of the requirement as prescribed in the Make in India Order, subject to conditions as mentioned therein.

19.4 When supply / service as per the tender is non-divisible or non-splitable in nature, Class 1 Local Suppliers quoting within the price band prescribed in 19.2 above (in ascending order) may be awarded full as prescribed in the Make in India Order, subject to conditions as mentioned therein.

19.5 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.

20.0 FRAUD PREVENTION POLICY:

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

ASST. GENERAL MANAGER (MATERIALS) - T&S

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 14
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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ANNEXURE-II

PRE QUALIFICATION CRITERIA

The bidder should meet all of the following prequalification criteria for the above work

- 1.0 The contractor should have prior experience in handling hazardous liquid or chemicals transport through water ways.
- 2.0 The contractor should have at least 1 year of experience in handling water transport of LAG or any other cargo and transported a quantity not less than 20,000 MT during any one of the last 5 years as on the date of tender.

The bidder must enclose scanned copies of (i) Work order supported by corresponding (ii) Experience certificate and (iii) Performance Certificate issued by the contractee with Part A bid in support of Criterion 1.0 & 2.0 above. For this purpose, the documents from Government or Quasi Government or Public sector under takings or Private limited companies or Public limited companies shall be considered for acceptance.

- 3.0 The bidder shall either own at least one number of the required barge with sufficient proof in own name, partners' name or firms name or lease the required barge.

Documentary evidence in proof of ownership and lease agreement in original on Rs.200/- stamp paper (in case of leased barge) shall be submitted as proof of Criterion 3.0 above along with Part A of the bid.

- 4.0 The bidder shall have an Average Annual Financial Turnover of minimum Rs. 1 Crore during the last three financial years, ending 31.03.2025.

The bidder shall enclose along with techno-commercial bid, any one of the following documents towards proof of financial soundness:

(a) Copies of Income Tax returns for the three previous financial years ending as on 31.03.2025.

(b) Copies of audited Profit & Loss Account and Balance Sheet for last three financial years ending as on 31.03.2025.

(c) Turnover certificate issued by a Chartered Accountant (CA) who is registered with the Institute of Chartered Accountants of India (ICAI).

- 5.0 Bidder must have an office in Cochin or be willing to open one immediately on awarding the contract. The office must have a responsible person with sufficient authority to co-ordinate day-to-day activities with FACT at loading / unloading points.

Bids from Bidders not fulfilling 1.0 to 5.0 above will not be considered for further processing.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 15
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

Note for Micro & Small Enterprises and Startups: Prequalification criteria specified above shall also be applicable for Micro & Small Enterprises and Startups without any relaxation.

Note: The offers of such bidders who meet PQ Criteria shall only be considered for technical evaluation and opening of price bids. Offers received without supporting documents or with incomplete form / documents are liable to be rejected. FACT reserves the right to verify the claim of the bidders /documents submitted by them, directly with the clients or any other agency in this regard.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 16
	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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Annexure III

VENDOR DATA FORM

(PLEASE USE ADDITIONAL SHEETS, IF SPACE IS INSUFFICIENT)

Transportation of Liquefied Ammonia Gas by Barge

TENDER NO. MM/181/E32013 dt. 20.08.2025

FACT reserves the right to verify the information given as per the format and enclosures. It is the responsibility of the bidder to give the full details asked for as per this format for evaluating his bid as per this Enquiry. Any misrepresentation of facts and withholding of information may result in disqualification.

Sl. No.	Description	To be filled in by vendor
1	Name of the bidder/firm	
2	Name, address and designation of the key person with whom company may correspond	
3	Address:	a. Regd. Office:
4		b. Branch Office:
5	PIN Code	
6	Telephone Nos. (with Country/STD codes)/Mobile No	
7	E-Mail id	
8	Details of Contact Person at Cochin Office with whom FACT may correspond	
9	Details of Local Office/ Representatives/ Liaison Agents	
10	Name of the person authorized to sign the bid and related documents	
11	Date of Registration of Firm	
12	Constitution of the bidder (Strike out which is not applicable)	Proprietorship / Regd. Partnership/ Limited Company/Private Limited/ Public Sector
13	Name and address of proprietor/ Partners/ Directors .	

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 17
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	 FACT	

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

14	CATEGORY:						
a	Whether the entrepreneur comes under the given status (please tick and attach document). (In case of Micro/Small pl. enclose Udyam certificate. All MSE bidders shall register / declare their Udyam Registration Numbers on CPP Portal and copy of this registration / declaration shall be attached with the offer; failing which such bidders will not be able to enjoy benefits as per PP Policy for MSME order, 2012.)	Micro/ Small/ Medium					
b	In case the bidder is an Entrepreneur whether he/she belongs to SC/ST category						

15	<u>TECHNICAL EXPERTISE</u> As required in clause 1.0 and 2.0 of PQ criteria, bidders experience in any of the previous five years as on the date of tender shall be furnished as per the format below (Attach Certificates from Organisation served):						
Name of Client	Work Order No. & Date	Item Transported	Period of Contract & Quantity in MT(Please specify year)				
			Year 1	Year 2	Year 3	Year 4	Year 5

Note: Copies of (i) Work order supported by corresponding (ii) Experience certificate and (iii) Performance Certificate from organization served shall be furnished.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 18
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 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
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FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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16.0 FACILITIES

16.0.1 **Details of Barge with specification:**

16.0.2 Own facilities available :
for repair of barges

16.0.3 No. of Office staff :

16.0.4 No. of skilled workers :

16.0.5 No. of unskilled workers :

16.0.6 Own facilities available for repair:
Of the equipments

16.0.7 No. of skilled / unskilled workers:

16.1.0 Time required for mobilisation/
Commencement of work from LOI :.....Days

16.2.0 Maximum quantity of LAG which can be transported per day using the barge offered :MT
[min. Qty to be transported is 222 MT per day (using 6 bullets)]

17. Name Address & Tel. Nos. of Bank with which the Bidder has financial dealings

18 **OTHER DETAILS:**

1	Have you ever been blacklisted by Government Department, Public Sector, Quasi Government, Undertaking	
2	Time required for commencement of work from date of our Letter of Intent(LOI) /Work Order	
3	When was the current long-term agreement signed with Workers' Union & When is it due for renegotiation	
4	Whether there is any serious labour unrest at present	
5	Any criminal cases pending against you / firm:	

19. Please furnish the following details along with your Banker's Authorisation letter:

1	Income Tax PAN No. (Upload copy of PAN Card).	
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PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 19
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

2	GST Registration No. (Upload copy of GST Registration Certificate).	
3	Name of the Bank with address	
4	Name of the Branch with address	
5	MICR Code	
6	IFSC Code	
7	Account Type	
8	Bank Account No.	
9	Account holder's Name	
10	Vendor email address	

Following documents to be enclosed.

- 1) Audited Profit and Loss account and Balance Sheet for the last 3 years.
- 2) Copy of "Permanent Account Number" (PAN) Card, if any.
- 3) Copy of "GST registration" , if any.
- 4) Proof of constitution of your firm
- 5) Copies of the R.C. Book/Licence/Calibration Certificates of the barge owned & Lease agreement (in case of leased barge)
- 6) Other details required in Technical Procurement Specification TPS No. OFF-LAG-AMMB-003-R7.

DECLARATION

I/We hereby declare that the particulars furnished above are true to the best of my/our knowledge and belief. I/we hereby agree that FACT shall have the right to visit my/our office/works to satisfy themselves that the particulars furnished above are correct and I/we shall furnish any additional information/documents that may be required by FACT. I/we understand that suppression of any facts/furnishing false information shall render us liable for disqualification.

I/We also hereby undertake to maintain and deploy the barge offered by me/us, during execution of the work

Authorised Signatory,

Date: _____ Name : _____

Place: _____ Designation : _____

Signature : _____

(Seal)

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 20
	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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Annexure-V

TERMS AND CONDITIONS

01. GENERAL:

- 1.1 **"FACT"** shall mean the Fertilisers and Chemicals Travancore Limited, with registered office at Udyogamandal and its operating Divisions at Udyogamandal and Ambalamedu.
- 1.2 **"Contractor"** shall mean the firm/company/individual, who has been awarded the work order (Contract) against their bid in response to the enquiry issued by FACT.
- 1.3 The Contractor shall return to FACT the duplicate copy of the work order with terms and conditions duly acknowledged and signed in confirmation of having accepted the order as per terms and conditions mentioned.
- 1.4 The Contractor shall execute within 15 days from the date of receipt of FACT's Work Order, an agreement in stamp paper in the form prescribed by FACT and shall bear all expenses incidental thereto.
- 1.5 The contract once awarded will not imply that the Contractor has exclusive right for the particular job.
- 1.6 The Contractor is deemed to have carefully examined and satisfied himself on the nature and extent of work to be executed and no claims for any extra payment shall be admissible under any circumstances.
- 1.7 FACT shall not in any way be responsible to the Contractor for payment of compensation for hold up of work, if any, due to any situation beyond the control of FACT.
- 1.8 The transportation of LAG includes provision of suitable barge, operation of the barge with their own crew and making arrangements at contractor's cost for overcoming infringements, if any, to create a passage for movement in the canals.
- 1.9 If a bidder has offered a barge, which is found unsuitable for movement through the canals and for placing at WI/UD/CD Jetty, on award of contract, it shall be the responsibility of the bidder to arrange and provide suitable alternative barge for the work, at no extra cost to FACT. FACT shall not entertain any claim consequent to the bidder/contractor making such alternate arrangements for the work.
- 1.10 **All barges henceforth to have GPS tracking system as specified by Factories & Boilers Department 'FABSAFE' system.**
- 1.11 The Contractor or his authorised representative shall call on the contract administrator or his authorized representative to receive instructions regarding the transport of LAG to be undertaken by him and arrange to work accordingly. The signing of FACT's transit documents by the Contractor's representative shall be deemed to be acknowledgement of receipt of goods on behalf of the Contractor.
- 1.12 The Contractor or his duly authorised representative shall take delivery of materials and the Contractor shall always be responsible for safety and preservation of material till they are duly delivered at the destination points
- 1.13 FACT shall have the right to object to any unsafe practice used or resorted to by the Contractor and to direct the Contractor to carry out the job in a manner considered

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 21
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD		ENQUIRY NO. MM/181/E34198 dated 17.09.2026
safe by FACT. Notwithstanding any instruction given by FACT in this respect or in any other respect, the responsibility for the safe and prompt delivery of the materials shall be that of the Contractor.			
1.14 In case the goods are held up en-route due to any break-down or accident or force majeure condition the matter shall be intimated to the contract administrator over telephone or in person immediately and confirmed within three days in writing. Barge shall not stop anywhere en-route other than for reasons mentioned above.			
1.15 It will be the responsibility of the Contractor to obtain at his cost all clearances/sanctions from concerned authorities and local bodies (if required) such as Port Trust, Public Works Department, Post & Telegraph Department, Railways, Corporations, Municipalities, Panchayats, Police, Electricity Board, etc. The Contractor is expected and bound to anticipate and arrange for all such clearances and sanctions well in advance. Any damage, demurrage or any other losses arising direct or consequential on account of any lapses in this regard shall be to the Contractor's account.			
1.16 The maintenance of draft in Udyogamandal and Champakara canals will not be the responsibility of FACT.			
02. <u>SCOPE OF WORK / QUANTITY:</u>			
Transportation of Liquefied Ammonia Gas by self-propelled Barge (approx. quantity: 70,000 MT) using bullets provided by FACT from FACT's storage tank at Willingdon Island, Cochin to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD for a period of one year. However individual quantity for each item of work may be appropriated among the three routes as per requirement, subject to keeping the overall value the same. Please refer clause 7.0 and 8.0 of Technical Procurement Specifications TPS No. OFF-LAG-AMMB-003-R7 for detailed scope of work.			
03. <u>PERIOD OF CONTRACT:</u> The period of contract shall be One year from the date of commencement of work as per Letter of Intent / Work order.			
04. <u>INSURANCE:</u>			
FACT shall arrange transit insurance for the cargo and the bullets only. Insurance coverage for the Contractor's Barge, all equipments, crew and all belongings engaged for the work shall be arranged by him at his own responsibility and cost. The Contractor shall be fully responsible for all damages to the Barge, personnel deployed by him, and also for liabilities on account of third party claims, if any, arising on account of accidents or any other calamities during the pendency of the contract. FACT shall have recourse to the Contractor for any costs, claims, demands, proceedings, damages and expenses whatsoever arising out of or in connection with any failure of the Contractor to perform any of the obligations under the terms of the contract.			
The safety of the Contractor's belongings shall be arranged by him at his own responsibility and cost.			
PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 22
	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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05. **SECURITY DEPOSIT:**

The Contractor shall remit **five percent (5%) of the total contract value** as interest free Security Deposit (SD) through 'State Bank Collect' portal using the link given below within 15 days of issue of work order by FACT.

However, if the Security Deposit amount exceeds Rs.10,000/-, Bank guarantee (preferably Electronic Bank Guarantee (E-BG)) issued by a Nationalised / Scheduled Bank in India, as per the Proforma prescribed is also accepted as Security Deposit. **In cases where the Bank Guarantee amount exceeds Rs.10,00,000/- (Rupees Ten Lakh only), the Security Deposit shall be furnished mandatorily through Electronic Bank Guarantee (E-BG)** issued by a Nationalised / Scheduled Bank in India, as per the Proforma prescribed. The Bank Guarantee shall be valid till the expiry of the contract with a claim period of six months thereafter.

No relaxation/exemption will be given for submission of Security Deposit.

Link for payment of SECURITY DEPOSIT through '**State Bank Collect**' is given below.

[https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=9303&categoryName=Earnest Money Deposit \(EMD\)/SD Remittance](https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=9303&categoryName=Earnest Money Deposit (EMD)/SD Remittance)

The link is also available on our website www.fact.co.in Tenders 'Click Here to Pay EMD/Security Deposit'. The bidder/vendor shall precisely indicate their Name , Tender number, Work Order Number and other relevant details while making the online payment through 'State Bank Collect' and the payment receipt generated thereon shall be submitted to us.

The EMD (if applicable) remitted by the Contractor can be adjusted towards security deposit, if so desired by him. Such EMD shall be returned only on remittance of requisite Security Deposit.

The Security Deposit shall not be released until the work as per the Contract is satisfactorily completed and accepted and final bills paid. Any amount due from the Contractor to FACT shall be deducted from the Security Deposit without prejudice to FACT's right to claim balance amount, if any, from the Contractor.

The violation of any of the terms and conditions of Contract by the Contractor shall be liable to forfeiture of the Security Deposit and disqualification from further work with FACT without prejudice to FACT's right to avail other remedies.

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 terminated 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.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 23
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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06. **RATES:**

The rate for transportation is all-inclusive per MT of LAG (but exclusive of GST) transported from WI to UC Petro or WI to CD or between UC Petro and CD as per the movement requirement of FACT. GST, if applicable, will be payable extra by FACT as per statutory notification. The rates shall be inclusive of all incidental and other charges excluding GST, which may have to be incurred by the Contractor in execution of the work as per this contract.

The rates quoted shall be firm without any change on any account during the contract period of 1 year except for variations in the retail price of High Speed Diesel (HSD) at Cochin.

For the purpose of calculation of variation in rates as above, the Retail Price of diesel at Cochin on the date of opening of Part-A bid shall be taken as the base rate.

In the event of any increase / decrease in the price of HSD, from the price of HSD prevailing at Cochin on the date of opening of Part-A bid, FACT shall increase / decrease the transport rates. The revision formula applicable shall be at the rate of **one Rupee per MT for one Rupee per litre increase or decrease in the retail price of HSD**. The revision in the contract rate shall be calculated in this proportion, (i.e. if the increase or decrease is only 50 Paise per litre, the rate shall be increased/decreased by 50 Paise per MT). Diesel price variation shall be averaged/simple for the completed billing period and revised rates shall be applicable for that completed billing cycle.

07. **PAYMENT:**

The scheme envisages transportation of LAG by filling in six insulated bullets (used for rail transportation earlier) of capacity 37 MT each, mounted in the barge. Quantity filled in each bullet will be controlled by setting Mass Flow Meter at 37 MT. Since measurement of quantity is by flow meter set at 37 MT, quantity for bill settlement shall be taken as 37 MT each.

Payments shall be made based on the bills submitted on fortnightly basis duly certified by by DGM(Production)CD in the W.I./CD routes & UC-Petro/CD routes and DGM(Production)Petro in WI/ UC-Petro route or their authorized representative or any other Officer nominated by FACT for that purpose. Bills that are complete in all respects will be processed and passed for payment normally within 15 days from date of receipt. The Contractor shall not be eligible for any other charges on any account other than that specifically mentioned in the Work Order.

Payment shall be effected, on presentation of the bills to the Dy.General Manager (Fin)-Bills duly certified by the authorised person specified. Final settlement of contractors bill shall be made after deduction of (1) amounts due from them to FACT on account of shortage / damages / loss to the goods entrusted to them, (2) statutory levies such as Income Tax, TDS on GST etc. if any and (3) any other amount due from the contractor for any other reason. If the amount due from the contractor is more than the amount due to the contractor, the contractor

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 24
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

shall arrange to pay FACT the difference without delay.

08. QUANTITY:

The minimum quantity movement is estimated as 222 MT per day (using 6 bullets) for approximate 330 days per year. The estimated total quantity of LAG to be transported by barge will be approx 70,000 MT. The quantity to be moved is only approximate indication and the quantities are liable to vary either way depending on storage capacity available and plant requirements etc. FACT cannot guarantee to the Contractor either continuity of work on all days or any definite or minimum quantity for transportation on daily basis. The Contractor shall have no right to claim damages including idle time or loss of profit on account of reduction in revenue arising out of variation in quantity, within the indicated limits, made available for transport. **FACT reserve the right to appropriate the total quantity among the three routes as per requirement from time to time during the contract period.**

***The movement shall be as per FACT's requirement based on the request from FACT CD/UC.**

09. CONTINUITY OF WORK:

The contract shall not mean continuity of work for the Contractor. The Contractor shall contact the authorised representatives of FACT for obtaining instructions. The instructions given over telephone have also to be complied with. The contract once awarded will not imply that the Contractor will have exclusive right for the particular job. The contract is not a guarantee to the Contractor either for continuity of work on all days or any definite volume of work at any time.

10. RESPONSIBILITY FOR MATERIAL:

The Contractor shall be responsible for the material entrusted to him and shall compensate FACT for any shortage or damage while the goods are in his custody.

11. SECURITY & SAFETY REGULATIONS:

The Contractor shall strictly observe the Security and Safety Regulations of FACT. Any loss or damage incurred by FACT, on account of the neglect or failure of the Contractor or the Contractor's employees, representatives including the crew of the barge to observe the security and safety regulations shall be to the Contractor's account.

Smoking and carrying smoking material (including matches) inside FACT premises is prohibited due to safety reasons and the Contractor shall ensure that his employees, representatives and crew comply with this.

Any damage caused to any of FACT's buildings, equipment, vehicles, crafts etc. and that of any other contractor/s due to the negligence of the Contractor, his employees, his representatives and crew shall be to the account of the Contractor and FACT shall be indemnified and compensated in all such respects by the Contractor.

All precautions in transporting and handling whether stipulated or not shall be

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 25
Transport  services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

adhered to by the Contractor. The Contractor shall exercise care, diligence and promptness in the work and adhere to transport Rules and regulations, statutory obligations and all other Rules and Laws that have a bearing on the work. Any damages/shortages/penalties or any action legal or otherwise arising out of the Contractor's delay or failure or negligence or breach of statutory obligations shall be to the Contractor's account. If any loss/expenditure arising from the breach thereof is not met satisfactorily by the Contractor, FACT reserves the right to withhold payment of bills/Security Deposit and discharge the obligations of the Contractor without prejudice to FACT claiming from the Contractor full value of damages/compensation. The account rendered by FACT in this connection shall be treated as final.

The barge employed during the course of the execution of the Contract, shall have valid permits for carrying out the intended task.

12. STATUTORY OBLIGATIONS

The Contractor shall comply with the requirements of all Local, State and Central Govt. Acts, Rules Regulations, By-Laws, Orders etc, in force from time to time and in particular Indian Factories Act, Workmen's Compensations Act, Contract Labour (regulations and abolition) Act 1970, Minimum Wages Act 1936, The Mines Act 1952, The Explosives Act 1884 and all other relevant Acts and Laws as amended from time to time in so far as they are or may be applicable to the execution of works as per this contract.

The Contractor shall obtain at his cost all permits, license and other authorisation, as required for his work, from Govt. authorities. The Contractor shall maintain proper records & registers as required by the concerned statutes and submit them to FACT as and when required.

Proper records of payment of wages to workers/labourers/crew etc. engaged in the work shall be maintained by the Contractor and produced for inspection when required by FACT.

The workers deployed by the Contractor for the work shall be covered under the PF & ESI Acts. The Contractor shall ensure full compliance to the above Acts. The Contractor shall be responsible for making all payments to his workmen, including ESI and Provident Fund benefits etc., as applicable.

The Contractor shall obtain valid registration under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 (PF) & The Employees' State Insurance Act, 1948 (ESI) and shall ensure full compliance with the above Acts. The workers deployed by the contractor for the work shall be covered under the Acts. The contractor shall regularly remit the PF/ESI contributions in respect of their employees and file regular returns, as prescribed under the respective acts. The copy of monthly PF/ESI remittance challans along with periodic returns shall be furnished together with the subsequent monthly bills. In case FACT is to incur any expenditure/loss in the capacity as Principal Employer due to non- compliance on the part of the contractor of these Acts, such expenditure/loss shall be recovered from the contractor.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 26
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

Tenderers shall submit the registration certificate with Labour dept./PF/ESIC if available. If the tenderer is not registered under ESI/PF Act, tenderer shall submit PF/ESI Registration certificate before commencement of work. Failure to produce the original certificates at the stage of starting the work would result in disqualification and forfeiture of EMD and also liable for debarring from participation in future tenders.

Payment of PF & ESI for the month, both the employer's (in this case contractor) and employee's (in this case workmen employed by the contractor) contributions should be deposited in the bank in the permanent PF code number and challan obtained before the 15th of the subsequent month should be forwarded to the company.

The contractor will, in turn, submit the documentary evidence in support of payment of PF & ESI of each month along with subsequent month RA Bills.

In case the Contractor fails to discharge his statutory obligations leading to a situation wherein FACT is to incur any expenditure/loss in their capacity as the Principal Employer such expenditure/loss shall be realised from the Contractor.

It is also made clear that FACT shall not make any payments to the Contractor other than the rates agreed for the work. All extra payments, if any, to be made to the Contractor's workmen during the course of contract period shall be borne entirely by the Contractor. In case the Contractor fails to discharge his statutory obligations leading to a situation wherein FACT is to incur any expenditure/loss in their capacity as the Principal Employer, such expenditure/loss shall be realized from the Contractor.

The contractor shall be liable for payment of all claims, compensation or expenses payable as a result of any accident or injury sustained by workmen employed or hired by the contractor in the execution of the contract, which the contractor is liable to pay by rule, law and order of Government. The expenses, if any, incurred by FACT on the above will be realized from any amount that may be due to the contractor from FACT.

13. CONTRACTOR's WORKMEN

FACT shall have no dealing with the Contractor's workmen or their Union. FACT reserves the right to debar any of the contractor's employees/workmen/crew from entering FACT premises for whatever reason FACT deems fit.

14. LIQUIDATED DAMAGES:

The contractor shall make available the barge within 12 hours of receipt of oral / written instructions from DGM(P)-CD or any other Officer authorised by him and undertake the trip to transport the quantity of 222 MT Ammonia. In case the contractor fails to place the barge to undertake the trip and transport the quantity as above or transport a lesser quantity, due to reasons attributable to him, liquidated damages (LD) at the rate of Rs. 30/- per MT for the shortfall in quantity (i.e. 222 MT - actual qty. transported) shall be recovered from the bills of the Contractor or from any amounts due to the contractor subject to Clause 15 of Terms and Conditions.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 27
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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15. DEFAULT:

In the event of failure on the part of the Contractor to execute the Contract to FACT's satisfaction, FACT may, at their option, terminate the contract wholly or partially and arrange to transport the material through other contractors or by themselves or make alternate arrangements for the transportation at the risk and cost of the Contractor and without prejudice to FACT's other rights as per the contract. Evaluation of the Contractor's performance by FACT and decisions taken thereon shall be final and binding on the Contractor.

16. TERMINATION:

If any work entrusted with other contractors by FACT is obstructed by, interfered with or caused to be interfered with by the Contractor, his employees, his representatives or crew, the contract shall be terminated without notice and the remaining work for the unexpired portion of the contract arranged by FACT through others at the Contractor's risk and cost.

The contract can be terminated by FACT with one month's notice at any time during the pendency of the contract.

17. FORCE MAJEURE:

Neither the Contractor nor FACT shall be considered in default in the performance of their obligations under the Work Order so long as the performance is prevented or delayed because of Force Majeure conditions like war or hostilities, riots or civil commotion, earth quake, flood or tempest, drought, accident, fire or explosion, labour strike or lock-out or Act-of-God or because of any law and order proclamation, regulation or ordinance of Government or subdivision there of and situation arising out of our plant break downs. Notice of a Force Majeure situation shall be given by the affected party to the other party with in one week of its occurrence. Should such a delay be for more than three months, FACT shall have the right to cancel the Work Order at no charge to FACT and FACT shall be entitled to reimbursement of any amount due from the Contractor.

18. ASSIGNMENT :

The Contractor shall not assign, transfer or sub-let this work order without the prior written approval of FACT.

19. APPLICABLE LAW & SETTLEMENT OF DISPUTES:

This contract shall be subject to and shall in all respects be governed by Indian law.

(I) If the 'contractor' is a Central Public Sector Enterprise or Central Government Department:

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 inter-se and also between CPSEs and government departments / Organizations (excluding disputes concerning taxation), such dispute/ difference shall

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 28
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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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.”

Or

(II) For contracts other than (i) above:

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 and number of Arbitrator shall be one. The venue of the Arbitration shall be at Ernakulam and the proceedings shall be in ENGLISH.

Any legal proceedings relating to this contract shall be limited to courts of law under the jurisdiction of the Kerala High Court at Ernakulam.

20. ENVIRONMENT MANAGEMENT SYSTEM:

FACT is a company having Environmental Management System according to ISO 14001 standard. The Contractor shall ensure that none of their activities cause damage to the environment.

21. FRAUD PREVENTION POLICY OF FACT:

FACT a Central Public Sector Undertaking (PSU) follows Corporate Governance principles proactively and has formulated a Fraud Prevention Policy. Details of Fraud Prevention Policy of FACT-2012 can be viewed in FACT's Website www.fact.co.in. Contractors shall make themselves aware and also ensure compliance of the same.

22. ENTIRETY OF CONTRACT:

All of the terms agreed to between the Contractor and FACT are included in the Work Order and no other communication, written, oral, or implied shall be considered to be included in the Work Order or form part of the Work Order, unless specifically agreed to in writing by FACT.

23. WORKING HOURS: The Contractor shall have to undertake transporting 24 hours a day on all days including Sundays and Holidays.

24. PASSES: The Contractor shall obtain photo passes issued by CISF, for himself, his workers and representatives for entry inside the premises of FACT and where loading/unloading points are located. Passes are not transferable and shall be renewed on expiry. Passes must be surrendered to our Security Department, when workers/representatives are changed or when the contract is completed/terminated, failing which amount as fixed by the Company shall be payable for every pass thus not surrendered.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 29
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

25. CONTRACTOR TO EXECUTE AGREEMENT:

The contractor's responsibility under this contract will commence on the date specified in the Letter of Intent/Work Order. The successful Bidder shall be required to execute an Agreement with FACT, within 15 days of the receipt by him of the Work order issued by FACT for carrying out the work according to the terms and conditions of the contract given along with the Work Order. The Agreement shall be executed on Rs. 200/- Stamp paper and shall be in the proforma as specified by FACT. The provisions contained in tender papers and other documents exchanged between the Bidder and FACT shall form part of the contract. The Earnest Money Deposit (if any) is liable to be forfeited in case the contractor fails to execute the Agreement within the stipulated period as mentioned above.

26. ISSUE OF BULLETS

The bullets shall be issued to the barge operator/s on furnishing an electronic Bank Guarantee (E-BG) of Rs.60 lakh (10 Lakh per bullet) for the 6 bullets. The Electronic Bank guarantee shall be submitted within 15 days of award of contract as per our proforma at Annexure IX. The E-BG shall be valid till the expiry of the contract with a claim period of six months thereafter.

27. Contract Administration:

This contract shall be administered and executed by DGM(P) CD i.e., Deputy General Manager (Production)-Cochin Division or his authorized representative.

All other terms and conditions shall be as per our "Technical Procurement Specifications-TPS No. OFF-LAG-AMMB-003-R7 (Annexure-IV)". In case of any contradiction between Technical Procurement Specifications TPS No. OFF-LAG-AMMB-003-R7 (Annexure-IV) and Terms and Conditions (Annexure-V), Annexure – IV will prevail.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 30
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

**FACT
CORPORATE
MATERIALS**

Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD

ENQUIRY NO.
MM/181/E34198
dated 17.09.2026

ANNEXURE-VI

COMPLIANCE STATEMENT

We state that our bid is in full compliance with the documents issued against the Enquiry No: MM/181/E34198 dtd. 17.09.2026 and we have read and understood the Notice Inviting Tender, Scope of Work, Instructions to Bidders, Special Terms and Conditions and Standard terms and conditions of Contract attached with this enquiry referred above and hereby confirm our acceptance to the same.

Name of bidder:

Signature of the Bidder:

Place:

(Seal)

Date:

PRPD. BY:

CHKD. BY:

APPRD. BY:

Date:

31

Transport  **services**

**FERTILISERS AND CHEMICALS
TRAVANCORE LIMITED**



FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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ANNEXURE – VII

UNPRICED COPY OF PRICE BID

**(Important: Please do not indicate any rates in this format.
Only indicate “Quoted” under each blank column)**

From

To

AGM [MATERIALS]-T&S,
FACT CORPORATE MATERIALS,
FACT PD ADMINISTRATIVE BUILDING,
UDYOGAMANDAL 683 501

Dear Sirs,

Sub: Enquiry No.MM/181/E34198 dtd. 17.09.2026 for Transportation of Liquefied Ammonia Gas by Barge.

With reference to the above, we quote our lowest rate for the subject tender as follows:

Sl. No.	Description	Unit	Quantity (1 year)	Rate per unit (all inclusive) Excluding GST (Rs.)	Total Amount (all inclusive) Excluding GST (Rs.)	Indicate “Quoted” Do not quote rate in this column
1.1	Transporting, fixing the bullets (6 nos) & procure, transport and fix piping, valves, fittings and associated structurals in the barge as per scope of work, terms and conditions and TPS attached.	NOS	6	5,26,350	31,58,100	
1.2	Dismantling the bullets, piping, valves, fittings and associated structurals from the barge, lifting and transporting the same to the designated location in FACT (CD) on completion of contract as per scope of work, terms and conditions and TPS attached.	NOS	6	2,12,083	12,72,498	

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 32
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

Sl. No.	Description	Unit	Quantity (1 year)	Rate per unit (all inclusive) Excluding GST (Rs.)	Total Amount (all inclusive) Excluding GST (Rs.)
				Indicate "Quoted". Do not quote rate in this column	Indicate "Quoted". Do not quote rate in this column
2.	Transportation of Liquefied Ammonia Gas from & to the following destinations as per scope of work, terms and conditions and TPS attached.				
2.1	From FACT Ammonia Storage (Willingdon Island), Cochin Port to FACT-CD at Ambalamedu.	MT	35,000		
2.2	From FACT Ammonia Storage (Willingdon Island), Cochin Port to FACT(UC) Petro at Udyogamandal.	MT	15,000		
2.3	From FACT-UC Petro at Udyogamandal to FACT-CD at Ambalamedu.	MT	20,000		

GST shall be extra as applicable based on statutory notifications.

We have read and understood the Notice Inviting Tender, Instructions to bidders, Technical Procurement Specifications TPS No. OFF-LAG-AMMB-003-R7 and the Terms and Conditions of this enquiry and hereby confirm our acceptance to the same.

Place: _____ Name and address of the Bidder
with signature and seal:

Date: _____

Note:

The rates for item no 1.1 (i.e. Transporting, fixing the bullets (6 nos) & procure, transport and fix piping, valves, fittings and associated structurals in the barge) and item no 1.2 (i.e. Dismantling the bullets, piping, valves, fittings and associated structurals from the barge, lifting and transporting the same to the designated location in FACT (CD) on completion of contract) are pre-determined and provided as fixed Lump Sums. Hence, bidders shall quote rates for the remaining three items of work (2.1, 2.2 & 2.3) in the Price Bid Format (Annexure-VIII). The same has to be confirmed by the bidder while quoting the bid by indicating '**QUOTED**' against all five items of work in the Unpriced Copy of Price Bid format (Annexure VII). Bids not complying with this will not be considered.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 33
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

ANNEXURE-VIII

PROFORMA OF PRICE BID

Please visit <https://eprocure.gov.in> and search using the tender **ID** under FACT Tenders to see the price Bid (BOQ-EXCEL SHEET)

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 34
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

Annexure -IX

PROFORMA OF BANK GUARANTEE FOR FURNISHING SECURITY DEPOSIT
(TO BE OBTAINED FROM A INDIAN NATIONALISED/SCHEDULED BANK ON
STAMP PAPER WORTH Rs.500/-)

To

The Fertilisers and Chemicals Travancore Ltd.,
Udyogamandal, Cochin-683501.

Whereas FACT, Udyogamandal P.O., Kerala (hereinafter called referred to as the Company) has placed a work order no. dated with M/S.....(hereinafter called the Contractor) for the work ofand whereas it is one of the conditions of the said work order that the Contractor shall either remit a sum of Rs..... (Rupees.....only) or furnish a Bank Guarantee for Rs..... (Rupees.....only) as security deposit for the due fulfilment of the said work order by the said Contractor.

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 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.....only) being the amount of the security deposit against any loss or damage caused to or suffered by or would be caused to or suffered by the Company by reason of any breach by the said Contractor of any of the terms and conditions contained in the said work order.

We, the said Bank, do hereby unconditionally and irrevocably undertake to pay the amount, upon first written demand from the company, without any demur or protest. We, the bank further confirm that the company is not required to state the reasons or show grounds for such demand. Any such demand made by the company shall be binding and conclusive as regards the amount due and payable by the Bank under this guarantee.

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 proceeding 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..... 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 contract 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 certifies 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..... 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

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 35
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
---	---	--

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 or any other matter of 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 nor shall this guarantee be affected by any 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.

Our guarantee shall remain in force until..... Unless a claim or demand is made within six months after the expiry of the above date, all the Company's rights under the guarantee shall be deemed as waived/forfeited and we shall be relieved and discharged from all liabilities there under. Notwithstanding anything contained hereinbefore, our liability under this guarantee shall be limited to an amount not exceeding Rs..... (Rupees..... only).

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 notice 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.

Any notice by way of request, demand or otherwise here under may be sent by post or submitted to the bank addressed as aforesaid or any local branch of the bank in Ernakulam District/ Kerala State.

We..... Bank lastly undertakes not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

Dated this..... day ofTwo thousand and Twenty

For (Name of Bank) :

Authorised Official :

Name :

Designation :

Place:

Full address of the Branch issuing this guarantee:

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 36
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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ANNEXURE-X

AGREEMENT

Proforma of Agreement to be executed in Rs 200/- Non Judicial stamp paper

ARTICLES OF AGREEMENT made this day the Between THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED, a Company registered under the Travancore Companies ACT IV of 1114(Malayalam Era) and having its registered office at Eloor, Udyogamandal P O Ernakulam District, Kerala State(hereinafter called the FACT) on the one part and M/s.... (hereinafter called the Contractor) which expression shall where the context so admits or applies be deemed to include their heirs, executors, administrators, successors interest and legal representatives as well) on the other part.

WHEREAS the Contractor has agreed with M/s FACT for the due performance of work as set forth in the Work Order No..... dt... and accompaniments upon the terms and conditions therein mentioned as accepted vide their endorsements in the aforesaid work order.

NOW THESE PRESENT WITNESS THAT in consideration of the payments to be made by M/s FACT mentioned in the aforesaid Work Order no. dt. and accompaniments thereunto the Contractor shall duly perform the said works, fulfill and keep all conditions in the work order which will be deemed and taken to be part of this contracts as if the same had been fully set-out herein and FACT hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, FACT will pay to the Contractor at the time and in the manner set forth in the aforesaid work order and in the Annexure thereunto as accepted by Contractor vide his endorsement in the aforesaid work order, the amount or amounts calculated at the rate mentioned and as per terms stipulated therein as payment for the work. This agreement shall be in force up to ...

THE SAID CONDITIONS shall be read and construed as forming part of this Agreement and the parties thereto will respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively.

UPON THE TERMS AND CONDITIONS of this Agreements being fulfilled and performed to the satisfaction of Officer of the Company empowered by the Company in this behalf, the Security Deposit remitted by the Contractor or such position thereof as he may be entitled to under the said condition shall be returned to the contractor.

IN WITNESS thereof the Contractor, M/s..... and The Manager Materials(TS) of M/s The Fertilisers and Chemicals Travancore Ltd, For and on behalf of the Company have hereunto set their hands this day and year first above written.

For

In the presence of witnesses:

1.

2.

In the presence of witnesses:

for and on behalf of the Company.

1.

2.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 37
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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ANNEXURE -XI

INTEGRITY PACT

INTEGRITY PACT

Between

The Fertilisers 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

The Principal intends to award, under laid down organization procedures, contract/s for The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness / transparency in its relations with its Bidder(s) and or/Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and execution of the contract 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

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 38
	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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substantive suspicion in this regard, the Principal will inform the Vigilance Officer and in addition can initiate disciplinary actions.

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, in 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

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 39
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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signed, for such reason.

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.

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 40
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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(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.

(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 confidentiality.

(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

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 41
 Transport Services	FERTILISERS AND CHEMICALS TRAVANCORE LIMITED		

FACT CORPORATE MATERIALS	Transportation of Liquefied Ammonia Gas by self-propelled Barge from FACT's storage tank at W.Island to FACT UC Petro at Udyogamandal and FACT CD at Ambalamedu and from FACT UC Petro to FACT CD	ENQUIRY NO. MM/181/E34198 dated 17.09.2026
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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

(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)
Bidder(s)/Contractor(s)
(Office Seal)

For & On behalf of
(Office Seal)

Place:
Date:

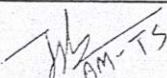
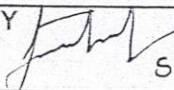
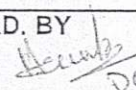
Witness 1:
(Name & Address).....

Witness 2:
(Name & Address).....

PRPD. BY:	CHKD. BY:	APPRD. BY:	Date: 42
		FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	
			

**Technical Procurement Specifications for water
transport of Liquefied Ammonia Gas
(LAG) using Ammonia Bullets**

TPS No. OFF-LAG- AMMB- 003- R7

TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS		ATTACHMENTS	SPEC.No. OFF-LAG- AMMB- 003-01 Sheet 1 of 1	
			Date : 23.05.2025	R7
SI No	Description	Spec No.	No. of sheets	
1.0	Introduction	OFF-LAG- AMMB- 003-02	1	
2.0	Facilities by FACT	OFF-LAG- AMMB- 003-03	4	
3.0	Technical Requirements for Liquefied Ammonia Gas Barge	OFF-LAG- AMMB- 003-04	2	
4.0	Safety Requirements for Liquefied Ammonia Gas Barge	OFF-LAG- AMMB- 003-05	2	
5.0	Broad technical specifications - Inland waterway barge for carriage of ammonia bullet tanks	OFF-LAG- AMMB- 003-06	3	
6.0	Maintenance of Equipment	OFF-LAG- AMMB- 003-07	1	
7.0	Scope of work	OFF-LAG- AMMB- 003-08	1	
8.0	Scope of Contractor	OFF-LAG- AMMB- 003-09	2	
9.0	Facilities by Contractor	OFF-LAG- AMMB- 003-10	2	
10.0	Quality of Work	OFF-LAG- AMMB- 003-11	1	
11.0	Scope of FACT	OFF-LAG- AMMB- 003-12	1	
12.0	Indicative general layout for Ammonia piping in ammonia transportation barge	TS/M/SK-697 R6	2	
13.0	Indicative general layout for walkways and pipe support platforms in Ammonia transportation Barge	TS/M/SK-1042 R0	1	
14.0	Route for LAG transportation by Barge		1	
15.0	Technical specification for Polyurethane foam insulation for Ammonia piping	CD-TSD-2025-07 R0	10	
PRPD. BY  AM-TS		CHKD. BY  SMTS	APPRD. BY  DGM(TS)	
FACT –COCHIN DIVISION		TECHNICAL SERVICES		

TECHNICAL PROCUREMENT
SPECIFICATION FOR WATER
TRANSPORT OF LAG USING
AMMONIA BULLETS

INTRODUCTION

SPEC.NB. OFF-LAG-AMMB-003-02

Sheet 1 of 1

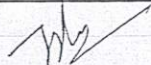
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1. Introduction:

FACT plans to meet the requirements of LAG (Liquefied Ammonia Gas) at its production unit in Ambalamedu through inland waterways using Barge. For this purpose FACT shall issue 6 numbers of insulated Ammonia bullets owned by FACT to a barge contractor for mounting them in a barge of suitable capacity and design, owned / leased and operated by him for safe transportation of Ammonia.

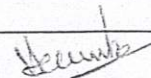
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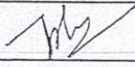
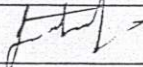
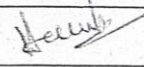


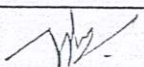
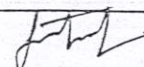
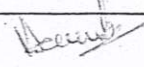
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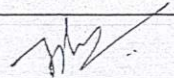
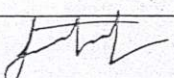
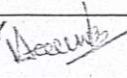


FACT -COCHIN DIVISION

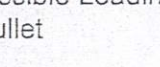
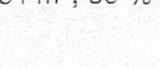
TECHNICAL SERVICES

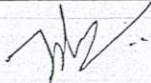
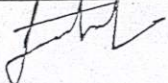
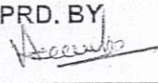
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by FACT	Spec.No. OFF-LAG- AMMB- 003-03 Sheet 1 of 4 Date : 23.05.2025 R7
2. Facilities by FACT: 2.1 Description of the system in General: FACT operates a 900 TPD capacity Ammonia plant at Udyogamandal Complex (UC) and maintains three ammonia handling facilities located at Udyogamandal, Ambalamedu, and Willingdon Island. At Udyogamandal, Product LAG is stored in two storage tanks of capacity 5000 tons each. The barge jetty at Petrochemical Division has facilities for loading LAG from the storage tanks into the barge and for unloading LAG from Barge to the storage tanks. At Ambalamedu, LAG is stored in two storage tanks with capacities of 5000 tons & 10000 tons respectively. The barge jetty at Amabalamedu is equipped with unloading and transferring facilities separately for each tank for unloading LAG from barges and back into the tanks. The ammonia storage installation at Willington Island has a storage tank of 10000 tons capacity for receipt and storage of imported LAG. The barge jetty at Willington Island has facilities for loading LAG into Barge from storage tank. Ammonia storage tanks of all facilities are double-walled, double-integrity atmospheric vessels, designed to store Liquefied Ammonia Gas (LAG) at approximately -33 °C and a pressure of around 500 mm W.G. For loading operations, LAG is loaded into the barge using dedicated ammonia loading pumps and associated piping. Only one barge can be loaded at a time. During loading, displaced ammonia vapor from the barge is returned to the storage tank via a vapor return arm, ensuring that tank pressure remains within safe operational limits. Flow meters are provided with facilities to cut the flow to the bullets when the set quantity has passed through it. This method is same for all the loading facilities in FACT as listed elsewhere in this document. For unloading operations, the same system is used in reverse. Ammonia bullets on the barge are pressurized using compressed ammonia vapor sourced from the refrigeration system, which displaces the liquid ammonia into the storage tank. Once unloading is complete, the bullets are depressurized by directing residual vapors to the refrigeration system. Unloading mechanism is same for all the unloading facilities.		
PRPD. BY 	CHKD. BY 	APPRD. BY 
FACT –COCHIN DIVISION		TECHNICAL SERVICES

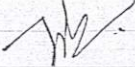
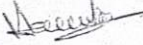
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by FACT	SPEC. NO. OFF-LAG-AMMB-000-03 Sheet 2 of 4	
		Date : 23.05.2025	R7
2.2 Ammonia storage and handling system of FACT Udyogamandal Complex:			
The ammonia storage, handling and loading / unloading system at FACT Udyogamandal complex comprise of the following:			
1) Two ammonia storage tanks of 5000 tons capacity each with associated refrigeration system. 2) Facilities for receiving LAG from the 900 TPD Ammonia Plant to the storage tanks. 3) Facilities for loading LAG to the barge at the rate of 40 tons per hour. 4) Facilities for unloading LAG from the barge at the rate of 40 tons per hour. 5) Facilities for loading LAG to trucks. 6) Facilities for unloading LAG from trucks.			
2.3 Ammonia Storage and Handling System of FACT Cochin Division at Ambalamedu:			
The ammonia storage, handling and loading / unloading system at FACT Cochin Division comprise of the following:			
1) Ammonia storage tanks of 5000 ton & 10000 ton capacity with associated refrigeration system. 2) Facilities for unloading LAG from the Barges at the rate of 40 tons per hour. 3) Facilities for unloading LAG from the Barge to 10000 ton tank at the rate up to 80 tons per hour 4) Facilities for unloading LAG from trucks. 5) Facilities for unloading LAG from rail wagons.			
2.4 Ammonia storage and handling system of FACT at Willington Island (Cochin Port):			
The ammonia storage, handling and loading / unloading system of FACT at Willington Island comprise of the following:			
1) An ammonia storage tank of 10000 tons capacity with associated refrigeration system. 2) Facilities for unloading LAG from ships at a rate of 700 tons per hour. 3) Facilities for loading LAG to the Barge (one barge at a time) at the rate of 40 tons per hour.			
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FACT –COCHIN DIVISION		TECHNICAL SERVICES	

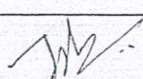
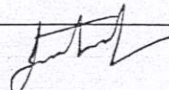
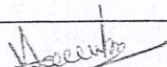
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by FACT	Spec.No. CTF-LAG-AMNH-000-00 Sheet 3 of 4 Date : 23.05.2025 R7	
4) Facilities for unloading LAG from the Barge (one barge at a time). 5) Facilities for loading LAG to trucks 6) Facilities for loading LAG to rail wagons.			
2.5 Technical details of the loading and unloading facility at Udyogamandal, Ambalamedu and Willingdon Island:			
2.5.1) Liquid Ammonia connection facility in Barge:			
No. of Ammonia Bullets	:	Six	
No. of liquid ammonia connection from barge to jetty	:	3	
Coupling Type	:	Quick release coupling	
Operating temperature	:	⁰ -29 C	
Design temperature	:	⁰ -35 C	
Operating pressure	:	² 7 kg/cm a	
Design pressure	:	² 21 kg/cm a	
Size of quick coupler	:	50 mm	
<u>Material of construction:</u>			
Coupling & Flange	:	SS 316/321	
Flanges size	:	CL 300 ANSI B 16.5 RF	
The quick coupler will be provided with manual locking arrangement.			
Additionally an unloading arm is also available.			
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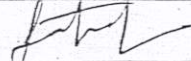
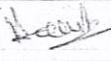
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by FACT	Spec.No. OFF-LAG- AMMB- 003-03 Sheet 4 of 4	
		Date : 23.05.2025	R7
2.5.2) Vapor Ammonia connection facility:			
No. of Ammonia Bullets	:	Six	
No. of Vapour Ammonia connection from barge to jetty	:	2	
Type	:	Quick release coupling	
Operating temperature	:	⁰ -29 C	
Design temperature	:	⁰ -35 C	
Operating pressure	:	² 7 kg/cm a	
Design pressure	:	² 21 kg/cm a	
Size of quick coupler	:	50 mm	
<u>Material of construction:</u>			
Coupling & Flange	:	SS 316/321-	
Flanges size	:	CL 300 ANSI B 16.5 RF	
The quick coupler will be provided with manual locking arrangement.			
Additionally an unloading arm is also available.			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Technical Requirements for Liquefied Ammonia Gas Barge	Spec.No. OFF-LAG- AMMB- 003-04 Sheet 1 of 2	
		Date : 23.05.2025	R7
3. Technical Requirements for Liquefied Ammonia Gas Barge:			
3.1 The Barge shall be suitably designed for safe navigation through the inland waterways for a minimum of 330 days in a year. Structural design, strength and buoyancy of the Barge shall be suitable to withstand any possible damage on account of grounding or collisions which will affect the capability of Barge to float or expose ammonia tanks to any risk or damage. Speed of the barge shall be in the range of 8 to 15 kilometers per hour. Design, engineering, construction, testing and acceptance trials of the Barge shall comply with all the relevant Code and Rules applicable for Barge deployed for transportation of LAG through inland waterways.			
3.2 FACT shall issue 6 numbers of insulated Ammonia bullets owned by FACT for the purpose of containment of LAG by mounting them in the barge of suitable capacity and design explained vide para 3.1 and owned/acquired by the contractor. The ammonia bullets shall be fixed inside the barge with proper structurals. The existing base frames of the wagons can be used. The system shall be compatible with unloading/Loading facilities of FACT.			
3.3 Technical Details of the Ammonia bullets:			
Size : 16.375m L x 2.246m O.D(+ 50mm thick insulation)			
Liquid handled : Liquid Anhydrous Ammonia			
Specific gravity : 0.6814			
Design Temperature range : 0 to 0 -35 C to 55 C			
Operating Temperature : 0 to 0 -33 C to 50 C			
Design Pressure : 2 22.15 Kg/cm²			
Operating Pressure : 2 1 Kg/cm absolute to 7 kg/cm² absolute			
Empty weight : 26,500 kg			
Total volume of single bullet : 60.66 m³			
Permissible Loading quantity: 37 MT (54 m³, 89 % of Bullet volume) per Bullet			
MOC of bullets : BS 1501-224-32A L50			
Code : 'A' class pressure vessel as per BS 1500 ; 1958			
Insulation : Poly Urethane Foam Insulation			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Technical Requirements for Liquefied Ammonia Gas Barge	Spec.No. OFF-LAG- AMMB- 003-04 Sheet 2 of 2	
		Date : 23.05.2025	R7
3.4 Necessary facilities shall be provided for loading and unloading of LAG to and from the storage tanks and also for indication and monitoring of the system including the temperature, pressure and liquid level in the storage tanks. Each bullet will be having a vapour line as well as a liquid line and unloading of the bullets will be carried out through the respective couplings. 3.5 Gas cutting/welding of lifting legs, clamps, nozzles, additional saddles etc. is not permitted, as the bullets have been post weld heat-treated. 3.6 The barge shall be classified for the bulk transport of LAG through Inland Waterways and shall meet all the requirements of Indian Inland Vessels-Act 2021. The contractor shall be responsible for obtaining certification and maintaining the validity of certificates for the total Contract period from Classification Societies like IRS or any other member of the International Association of Classification Societies (IACS) for design & constructional aspects of the Barge, for obtaining clearances from Statutory Authorities for operation of the barge and to meet the requirements noted vide para 3.1 to 3.4 & 5.0. 3.7 The necessary clearance and permits from statutory authorities including Directorate of Ports Kerala, Cochin Port Trust, Inland Waterways Authority of India, Southern Naval Command, Ministry of Environment and Forest, GOI, KSPCB, and local bodies wherever required as per existing rules or as per amendment in the existing rules from time to time during the period of the contract, for navigation of the Barge and movement of LAG by inland water ways through specified routes shall be obtained by the contractor. A copy of the document submitted to legal authorities shall be shared with FACT by the barge contractor. 3.8 The GA drawing, stability/Class certificate of the barge shall be submitted for review by FACT in the offer stage. This is to review the technical compatibility of the offer.			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Safety Requirements for Liquefied Ammonia Gas Barge	Spec.No. OFF-LAG- AMMB- 003-05 Sheet 1 of 2	
		Date : 23.05.2025	R7
4.1 Safety Requirements for Liquefied Ammonia Gas Barge – Contractor's Scope			
4.2	The total responsibility for safe transportation of LAG, without causing any environmental hazards or pollution, rests with the contractor. All safety facilities and accessories required shall be provided to protect personnel in the barge and the population in the areas surrounding the water ways, during eventualities like ammonia leakage, fire grounding of the barge or collision with other vessels.		
4.3	The barge organized by the contractor shall confirm to all requirements of safety needed for water transport and handling of LAG at high pressure due to temperature rise on account of any delay in unloading. The contractor shall observe all applicable rules and procedures in respect of design, manufacture, up-keep and operation of the equipment. The barge shall be provided with appropriate safety appliances for personnel safety and facilities for safe escape of the crew in the event of any unexpected and uncontrollable situation. The safety requirements/facilities shall essentially consist of, but not limited to the following:		
4.3.1 Safety gadgets such as:			
Minimum SIX numbers of single piece encapsulating full body chemical suit on board and minimum SIX nos. of SCBA set and goggles. Provide sufficient number of tarpaulins made of either polypropylene or polyethylene on board of the barge.			
4.3.2 One inline inductor with five number of foam concentrate (20 litre can) shall be maintained on board the barge.			
4.3.3 Sprinkler system to be provided throughout the periphery of the Barge. Provision for water curtain shall be available in the barge surrounding each bullet dome			
4.3.4 Tower lighting with portable back up power supply shall be available to meet any emergency on board the barge.			
4.3.5 Portable pump with basket strainers shall be maintained in addition to the inbuilt float pump.			
4.3.6 Provide two approach ladder at opposite sides of the barge for responder to move on board in the event of emergency.			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Safety Requirements for Liquefied Ammonia Gas Barge	Spec.No. OFF-LAG- AMMB- 003-05 Sheet 2 of 2	
		Date : 23.05.2025	R7
4.3.7 One number of air inflated boat shall be maintained on board of the barge to provide connectivity from land to barge. 4.3.8 Provide and maintain 6 nos. of 15 meter delivery hose with two number of zero torque branch for spraying water with sufficient number of hose boxes on board the barge. 4.3.9 Provide and maintain 3 numbers of CO2 extinguishers (4.5 kg). 4.3.10 Additional diesel engine driven fire hydrant pump shall be available and connected to the sprinkler system. 4.3.11 Cabin of the barge shall be airtight and shall be in accordance with the Classification Society rule requirement. 4.3.12 All the light fittings/power sockets in the barge shall be flame proof and shall be in accordance with the classification Society rule requirement. 4.3.13 First aid box shall be provided and MSDS / TREM cards to be exhibited properly. 4.3.14 Provide and maintain Communication facilities, public address system along with emergency siren on board. 4.4.0 The instructions of FACT Management through its staff/employees shall be obliged by the Contractor regarding operation and safety of barge movement from time to time. 4.5.0 The operating staff/ crew engaged by the contractor shall be properly and adequately instructed in writing in a language understood by them, on the material handled by them, its properties, its storage conditions, consequence of any exposure to it in the event of leakage and procedure to be followed in the event of any unexpected disaster situation. The Crew members shall be imparted with training in safe handling of hazardous chemical including Ammonia , wearing of SCBA, full body chemical suit, trap and control procedures, arresting ammonia leak using leak sealing belts and pads, first aid emergency procedures and other response procedures and a register should be maintained 4.6.0 In the event of contractors barge not having been appropriately certified by the concerned authorities or due to other unsatisfactory conditions, FACT reserves the right to reject any barge brought by contractor due to its unsound condition or being not worthy of water transport or found unsuitable for the transportation of LAG. 4.7.0 The barge shall have a Supervisor on board with single point responsibility.			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Broad technical specifications - Inland waterway barge for carriage of ammonia bullet tanks	Spec.No. OFF-LAG- AMMB- 003-06 Sheet 1 of 3	
		Date : 23.05.2025	R7
5.0 Broad technical specifications Inland waterway barge for carriage of ammonia bullet tanks: The broad technical specification listed below may not be complete and exhaustive enough to meet all the Rules, Regulations and Statutory requirements. Any mandatory requirement over and above what is listed in this document should additionally be complied with. The Company reserves the right to modify any technical parameters and specifications at any time at their discretion. The broad technical specifications of the vessel are as follows: 5.1.0 Each of the bullet tanks along with its insulations would have an extreme dimension of about 16.5m length and 2.4m diameter. The loaded weight of each bullet tank would be about 65 tonnes. The contractor shall accommodate the 6 bullets in one or multiple barges. The quantity transported shall not be less than 222 tons per day as per clause 8.8. The bidder shall submit a detailed scheme / drawing of the proposed arrangement for mounting the bullets on the barge and the detailed plan for accomplishing movement of minimum 222 tons per day as per his proposed arrangement. / scheme. Integrated Tug Barge (ITB) is also acceptable 5.2.0 The vessel carrying the bullet tanks should be made of ship building steel. 5.3.0 The vessel is expected to operate between FACT's Ammonia Handling Installation at Cochin Port and FACT (CD) Ambalamedu or FACT UC, Udyogamandal and FACT(CD), Ambalamedu taking a route through the Champakkara canal (National Waterway No. 3). This route has several shallow patches. The actual dimensions of the vessel should be such that it will permit safe operation through this route at all possible loading condition and tide and also taking into consideration the several bridges in the waterway from Cochin port and FACT Installations. Ballasting the vessel to achieve the air draught restriction is permitted. 5.4.0 The bidder shall specify the dimensions and other particulars of the proposed barge in the offer. 5.5.0 The scantlings of the vessel, the equipment on board for safe operation, lifesaving, firefighting, navigation, crew accommodation standards and the overall configuration with Ammonia in bullet tanks should have the approval of a Classification Society who is also a member of IACS (International Association of Classification Societies). In addition, it should also conform to the special rules of the said Classification Society for carriage of Liquefied Anhydrous Ammonia			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Broad technical specifications - Inland waterway barge for carriage of ammonia bullet tanks	Spec.No. OFF-LAG- AMMB- 003-06 Sheet 2 of 3	
		Date : 23.05.2025	R7

5.6.0 Sufficient accommodation spaces should be provided in the barge in accordance with the norms for crew safety and comfort. The crew strength should be in accordance with the Regulation for a vessel engaged in the transportation of cargo in the Inland waterways.

5.7.0 Stability:

5.7.1 The cargo (Ammonia) being a dangerous liquefied gas, the following norms of intact stability will have to be satisfied:

a) Proof of sufficient intact stability shall be furnished for all stages of loading and unloading and for the final loading condition.

b) Stability (intact):

(i) Stability is to be assessed according to the requirements of GZ curve area, minimum righting lever and initial metacentric height

(ii) The requirements for intact stability resulting from the damaged stability calculations shall be fully complied with.

5.8.0 The main machinery shall be in the aft of the vessel..

5.9.0 The Ammonia bullets have to be located below deck in the cargo area.

5.10.0 No source of ignition is to be present in the cargo space.

5.11.0 The cargo space is to be segregated from the other spaces by gas-tight bulkheads.

5.12.0 The bullet tanks should be mounted on saddle supports which shall be properly supported by the hull such as to prevent bodily movement of the tank under static and dynamic loads while allowing contraction and expansion of the tanks under temperature variations and hull deflections without undue stressing of the tanks and the hull.

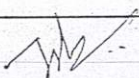
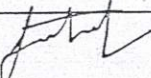
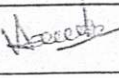
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Broad technical specifications - Inland waterway barge for carriage of ammonia bullet tanks	Spec. No. OFF-LAG- AMMB- 003-06 Sheet 3 of 3	
		Date : 23.05.2025	R7
5.13.0 Accommodation area, Engine room, Bilge system, water spraying system, fuel oil tanks, electrical system and Ballast system shall have the approval of Classification Society who is also a member of IACS (International Association of Classification Societies). In addition, it should also conform to the special rules of the said Classification Society for carriage of Liquefied Anhydrous Ammonia. 5.14.0 Proposed General Arrangement: Typical GA drawings showing 6 bullets, piping, instruments walkway etc. attached as Annexures for reference. The GA drawing is indicative only and changes may be carried out in the piping for safety of operations as per the P&ID provided by FACT. The bidder shall submit a detailed GA drawing of the proposed arrangement of bullets in the barge.			
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FACT –COCHIN DIVISION		TECHNICAL SERVICES	

TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Maintenance of Equipment	Spec.No. OFF-LAG- AMMB- 003-07 Sheet 1 of 1	
		Date : 23.05.2025	R7

6.0 Maintenance of Equipment:

6.1 The Contractor is responsible for maintaining all equipment within the scope of work in good operating condition. To facilitate this, the Contractor may withdraw the barge from service for a maximum of thirty (30) days per calendar year for essential docking, repairs, and maintenance activities

6.2 Any planned lay-up schedules, including requests for extended lay-up periods for special surveys or other exceptional maintenance, must be coordinated with FACT well in advance. This ensures that FACT's operations are not adversely impacted.

6.3 The Contractor's maintenance scope includes:

- a) Repair works, testing, and inspection of the barge and all associated machinery, including the engine and other equipment.
- b) Repair works, inspection, and testing of raw water piping, fire water piping, and accessories.
- c) Any other maintenance activities that are not specifically mentioned here but are excluded from FACT scope as detailed elsewhere in this document.

6.4 Exclusions from Contractor's Maintenance Scope:

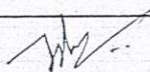
The Contractor's maintenance responsibilities do not include:

- a) Repair work on Liquid ammonia/Vapor ammonia piping, accessories, and ammonia bullets
- b) Repair work on PUF insulation for Ammonia Bullets and ammonia pipelines.

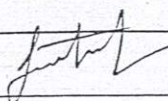
6.5 FACT Maintenance Responsibilities and Contractor's Obligations:

Maintenance, inspection and testing of the ammonia bullets and ammonia piping (liquid and vapour) will be performed by qualified FACT personnel as required. The Contractor must inform FACT of any observed abnormalities during operation. Furthermore, the Contractor is obligated to exercise due care to prevent any damage to the bullets, piping, or their insulation during routine operations and to maintain these components in optimal condition at all times.

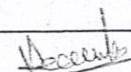
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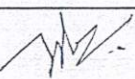
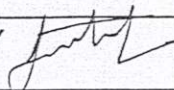
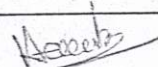
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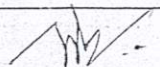
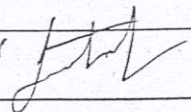
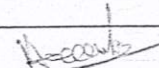
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Scope of work	Spec.No.OFF-LAG- AMMB- 003-08	
		Sheet 1 of 1	
		Date : 23.05.2025	R7

7.0 Scope of work:

7.1 Water transport of Liquefied Ammonia Gas (LAG) at -33 Degree Centigrade by Barge from FACT Udyogamandal complex /FACT Ammonia Storage at Willingdon Island-Cochin Port to FACT(CD), Ambalamedu and FACT Ammonia Storage Tank at Willingdon Island-Cochin Port to FACT Udyogamandal complex as per the following routes is under the Contractor's scope.

- From the barge jetty at FACT's Udyogamandal complex to the Barge jetty at FACT's Cochin Division at Ambalamedu.
- From the barge jetty at FACT's Ammonia Storage Installation at Willington Island, Cochin port to the Barge jetty at FACT's Cochin Division at Ambalamedu.
- From the barge jetty at FACT's Ammonia Storage Installation at Willington Island, Cochin Port to the Barge jetty at FACT's Petrochemical Division at Udyogamandal.

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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Scope of Contractor	Spec.No. OFF-LAG- AMMB- 003-09 Sheet 1 of 2	
		Date : 23.05.2025	R7
8.0 Scope of Contractor:			
8.1 Transporting the dismantled ammonia bullets to Jetty / barge lying site and fixing the bullets on the barge, without damage to vessel and insulation. Rigging arrangements for lifting of the bullets may be suitably devised using wire ropes of sufficient capacity strictly as per instructions of FACT engineer-in-charge. Any damage to the PUF insulation, cladding due to rigging operation/ transportation of the bullets etc. shall be rectified by the Contractor at his own cost before commissioning of the bullets.			
8.2 Labour involved in transporting and fixing the bullets			
8.3 Lifting tackles, machinery and carriages needed for the above work.			
8.4 Piping and Insulation of Piping Inside the Barge Ammonia piping, Raw water Piping, Fire water piping, fittings, valves, walkways, supports for the same etc. inside the barge including all materials required for fabrication, testing of the installation, maintenance and statutory testing of installation on board except the bullets as detailed below.			
8.4.1 The Contractor is responsible for preparing the piping layout and fabrication of the entire piping network within the barge. This network includes, but is not limited to, liquid ammonia piping, vapor ammonia piping, raw water piping, fire water piping, fittings, valves, walkways, and their supporting structures.			
8.4.2 The layout of the piping network and all procured materials must confirm to the attached GA drawing of ammonia unloading system at boat basin (No: TS/M/SK-697 R6). The piping work shall conform to good engineering practices. All the ammonia piping weld joints shall be TIG welded and 20% joints of all circumferential welds shall be radiographically tested as per relevant standards. All the joints shall be tested by Dye penetration. The entire assembly shall be hydro tested after fabrication. All the relevant documents like Material test certificates, fabrication drawings, inspection reports, radiography reports, welding procedure specifications etc . shall be submitted by the contractor. All the pipe lines inside the barge shall be painted with two coats of primer and two coats of epoxy paint after fabrication and before insulation with standard painting colour codes.			
8.4.3 Post-order, the Contractor shall submit detailed piping layouts with a Bill of Materials (BOM) for FACT's review and approval.			
8.4.4 The Contractor's scope includes the Poly Urethane Form (PUF) insulation with metallic cladding of both liquid ammonia lines and fittings, and vapor ammonia lines and fittings.			
8.4.5 The procurement of all piping and insulation materials for piping (Bullet insulation is excluded from contractor's scope) required for this work falls entirely under the Contractor's scope.			
8.4.6 All insulation material procured must comply with the Technical Specification for PUF insulation attached (No: CD-TSD-2025-07) to this Technical Procurement Specification (TPS).			
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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Scope of Contractor	Spec.No. OFF-LAG- AMMB- 003-09 Sheet 2 of 2	
		Date : 23.05.2025	R7

8.5 PUF insulation of liquid and vapour lines inside the barge

8.6 Piping materials, valves and fittings under contractors scope shall be as per detailed specifications to be provided by FACT. Preliminary P&I diagram with approximate Bill of Materials is attached for reference.

8.7 Coupling & Decoupling of Quick release couplings for loading / unloading activities shall be carried out by the contractor under the supervision of FACT's representative.

8.8 FACT's required quantity is 222 MT / day for transportation of LAG from:

a) FACT (PD) at Udyogamandal to FACT (CD) at Ambalamedu;

OR

b) FACT Ammonia Storage (Willingdon Island), Cochin Port to FACT (CD) at Ambalamedu;

OR

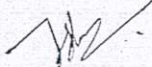
c) FACT Ammonia Storage (Willingdon Island), Cochin Port to FACT (PD) at Udyogamandal.

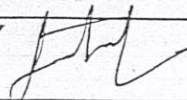
The bidder may quote the maximum quantity he will be able to transport per day using his barge

8.9 Work site for fixing the Ammonia bullets in the barge and the connected works can either be at FACT(CD) site or at the discretion of the contractor. FACT representatives shall inspect the work at FACT site or other sites as and when the contractor makes available the job for inspection.

8.10 The barge Operator shall be ready in all respects for transportation of LAG within 4 months of award of contract or within 4 months of issue of Ammonia bullets by FACT whichever is later.

8.11 The bullets and associated ammonia piping, Raw water piping, valves, fitting, associated structures etc., being the property of FACT have to be returned to FACT-CD within 30 days after completion of the contract period. The contractor shall arrange for dismantling the bullets from the barge and for transportation of the same to designated location in FACT(CD) as per instructions of FACT Representative.

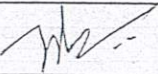
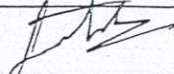
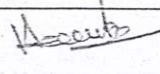
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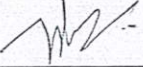
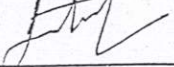
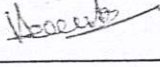
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TECHNICAL SERVICES

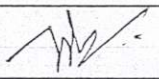
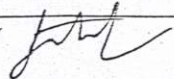
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by Contractor	Spec. No. OFF-LAG- AMMB- 003-10 Sheet 1 of 2	
		Date : 23.05.2025	R7
9.0 Facilities by Contractor 9.1 Contractor shall own / acquire the required barge as per para 3 at his own cost and use them for the transportation of the required quantity of LAG. Contractor shall transport sufficient quantity in order to meet the day to day requirement and also to maintain a buffer stock in FACT's storage tanks so that FACT's plants can be operated uninterrupted and smoothly. 9.2 The barge provided by contractor shall confirm to operating conditions specified by FACT, applicable design codes, statutory regulations in vogue, good engineering practice and with all Safety precautions. Contractor shall be responsible to obtain approval of the statutory as well as of Certification Agency for the design and drawings of the barge as applicable for carrying the bullets for transportation of Ammonia and shall produce the related documents to FACT. FACT Management or authorized representatives shall also have access to the works of contractor and their sub-contractors for inspection of barge at any stage to ascertain progress of manufacture and/or quality of work and more over shall have the right to inspect the barge at any time during the period of contract. 9.3 FACT shall extend all cooperation to the contractor to obtain the necessary Navigation certificates licenses, clearances etc. from the authorities concerned. However, contractor shall be solely responsible for timely receipt of required certificates, licenses etc. Contractor shall renew the Licenses, certificates, Clearances etc. from time to time as stipulated by the authorities concerned and keep them valid for the entire duration of the contract. Valid certificates, licenses and clearances etc. shall be made available to FACT as and when required. 9.4 Contractor shall ensure that the specification of all valves and fittings inside the Barge/ bullet shall be as per P&ID and shall match with vapor arm and liquid arm couplings issued by FACT. FACT shall within one week from the date of award of contract, furnish to the contractor details and specifications of couplings and pipe/pipe fittings to be fitted in the barge. Contractor shall inform the details of operating staff/crew for the barge operation one week before starting the operation. 9.5 If changes are required to be made at a future date on the coupling arrangements provided on the barge / bullet of the contractor, the same shall be undertaken only with the prior approval of FACT. 9.6 Contractor should ensure that his equipment and employees have adequate coverage under the statutory obligations including ESI/Workmen's Compensation Act. Payment of Wages Act, Motor vehicles Act, Safety regulations etc. as may be applicable and expenditure for these shall be met by the contractor. No extra payment will be made by FACT on this account			
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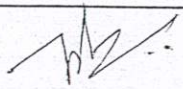
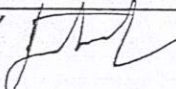
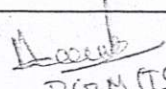
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Facilities by Contractor	Spec.No. OFF-LAG-AMMB-000-10 Sheet 2 of 2	
		Date : 23.05.2025	R7
9.7 Contractor shall ensure that the transportation system is operated safely without causing any environmental hazards or pollution and that no danger is caused to men / materials/marine life or facilities belonging to third parties or Public / FACT. 9.8 The barge with the bullets shall be used only for the purpose for which it is intended as per the contract. 9.9 Piping Specifications and Documentation A tentative bill of materials with specifications of piping, piping accessories comprising of valves and pipe fittings in ammonia lines is specified in the GA drawing (No: TS/M/SK-697 R6) attached. The bill of materials in this drawing is an approximate quantity for a single barge (for ammonia liquid and ammonia vapour lines) and a bullet configuration as indicated in the drawing. This may vary depending on sizing of the barge of the contractor and configuration of bullets. The Contractor shall submit a sketch indicating the bullet configuration and ammonia piping in the barge during offer stage. Post order they shall also submit detailed isometric drawings with Bill of Materials (BOM) for piping installation for FACT's approval within two weeks of the Purchase Order placement in accordance with FACT P&I D. Please note that the fire water piping, raw water piping etc falls under contractor's scope and the bill of materials for the same are to be accounted by the contractor. This is not indicated in the drawings given by FACT. The contractor shall be responsible for procurement and fabrication of all piping items required for successful commissioning of the ammonia barge.			
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FACT –COCHIN DIVISION		TECHNICAL SERVICES	

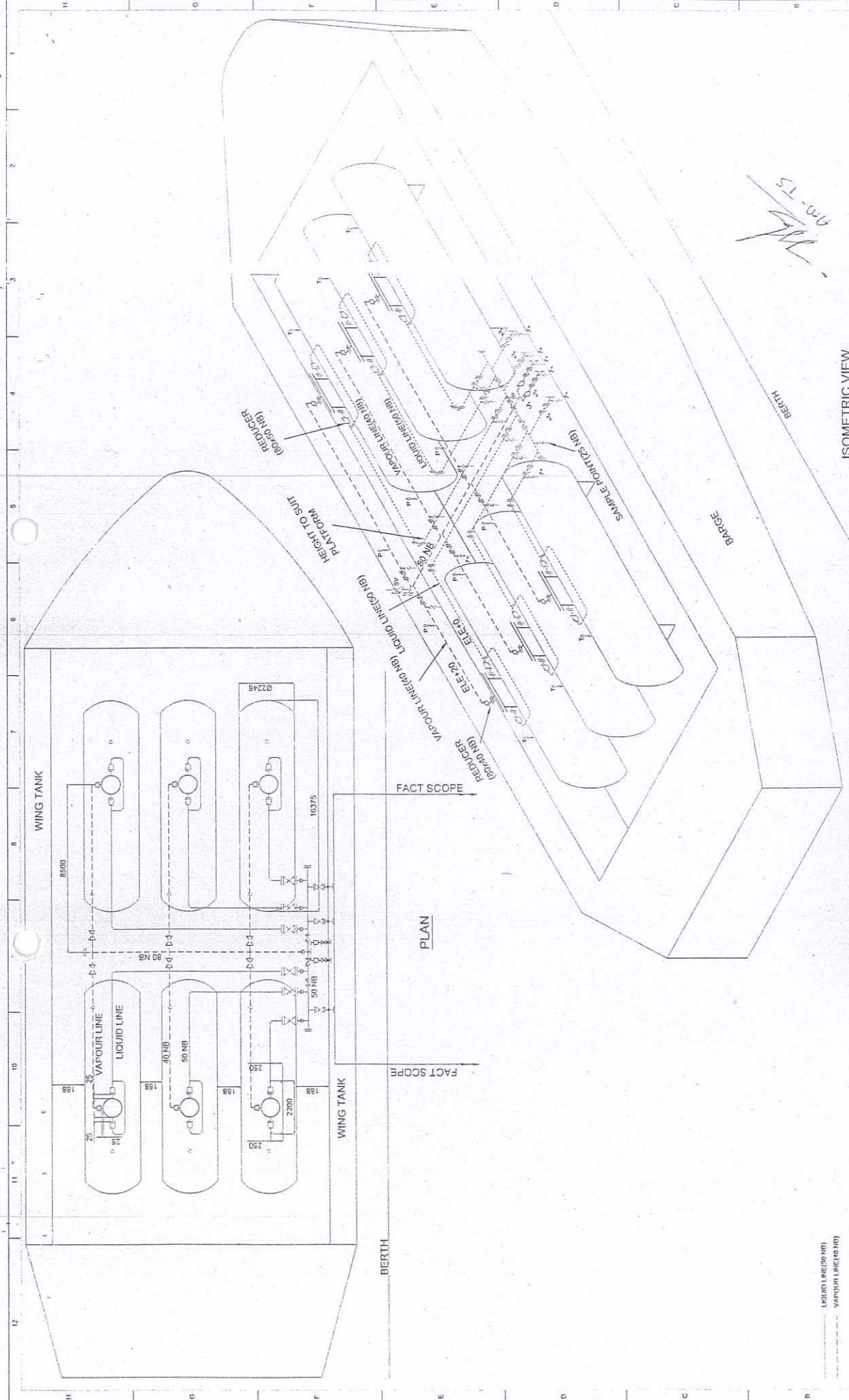
TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Quality of Work	Spec. No. OFF-LAG-AMMB-000-11	
		Sheet 1 of 1	
		Date : 23.05.2025	R7

10.0 Quality of Work:

- 10.1 Contractor shall execute work diligently and according to appropriate specifications consistent with the requirements explained vide para 3 to 8 hereof. If FACT is not satisfied with the design, specifications or material of construction or workmanship of the barge/ components of the barge other than the Ammonia bullets-, contractor shall rectify the defect immediately at his own cost on receipt of notice thereof from FACT on design, construction and final inspection stage and also when repairs are carried out during the contract period.
- 10.2 Loading and unloading of LAG will have to be done ensuring all safety procedures and strictly as per the direction of the FACT employee assigned for this purpose.
- 10.3 The contractor shall carry out the transportation efficiently, without causing any hazard or inconvenience or nuisance to Public/FACT. It will be the sole responsibility of the contractor to supervise and direct the work of the contractor's workmen during transportation and all other related operations. Only qualified and experienced personnel shall be employed as operation crew and there shall be a Supervisor with single point responsibility.
- 10.4 The contractor's crew shall carry out necessary actions required for mitigation of any emergency during transportation of LAG.

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TECHNICAL PROCUREMENT SPECIFICATION FOR WATER TRANSPORT OF LAG USING AMMONIA BULLETS	Scope of FACT	Spec. No. OFF-LAG-AMMB-003-12 Sheet 1 of 1 Date : 23.05.2025 R7	
11. Scope of FACT: 11.1 Maintenance Responsibilities FACT will handle any maintenance, repair works, testing, and inspection of the ammonia bullets, liquid/vapor ammonia pipelines and associated accessories including valves, PUF insulation etc. as required. However, the Contractor remains fully responsible for ensuring the safe and proper operation of these bullets, piping, and insulation by their crew. 11.2 PUF Insulation of Ammonia Bullets The PUF insulation of the ammonia bullets is within FACT's scope. FACT will carry out the stripping of existing PUF insulation and all Non-Destructive Testing (NDT) as required before the bullets are transported to the jetty by the Contractor. New PUF insulation will be applied after inspection and certification of the bullets by Barge classification agency engaged by the contractor, following a two-stage process: 11.2.1 Stage 1: PUF insulation of the bullets will be done near the jetty/railway siding, leaving a gap of approximately 1 meter width circumferentially at two locations. This gap is specifically for lifting and placing the bullets into the barge, as specified by the bidder. 11.2.2 Stage 2: The remaining PUF insulation on the left-out portions will be completed after the bullets have been erected inside the barge. 11.2.3 Due to space limitations, only two bullets can be erected at a time for the completion of the second stage of PUF insulation. Once insulation for the first two bullets is complete, the next batch can be erected. The Contractor must allocate six days for the completion of PUF insulation inside the barge. The 4 month period awarded (clause 4.9) for the commencement of operations of barge is inclusive of this 6 days. 11.3 Loading/Unloading Couplings: FACT will provide the mating loading/unloading couplings 11.4 Technical Specifications and Drawings FACT will provide specifications for piping works, valves, PUF insulation for piping, P&ID. 11.5 Utilities at Work Site If work is conducted at FACT premises, power and water will be provided at one point within 100 meters of the work spot for erection in the barge, free of cost. Any further distribution required beyond this point must be arranged by the Contractor. 11.6 Inspection FACT will conduct stage-wise inspection of the work at the Contractor's site to ensure quality, safety and compliance with FACT requirements			
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FACT –COCHIN DIVISION		TECHNICAL SERVICES	



ISOMETRIC VIEW

THE FERTILISERS AND CHEMICALS TRIVANCOORE LTD COCHIN DIVISION AMBALAMEDU KERALA INDICATIVE GENERAL LAYOUT FOR AMMONIA PIPING IN AMMONIA TRANSPORTATION BARGE SHEET NO. 01 OF 02 TS / M / SK - 697 R6											
NOTES 1) THE HEADER CONNECTION TO THE EXISTING LIQUID & VAPOUR SHALL BE ISOLATED BY PROVIDING SLIP PLATES. 2) PIPE LINES (BOTH LIQUID & VAPOR) FROM BULLET TO FIRST IV ARE TO BE PUF INSULATED BY THE CONTRACTOR. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED											
DRG. NO. TITLE REFERENCE DRAWINGS S.NO. ZONE PARTICULARS REVISIONS INITIAL											
DRAWN PREPARED CHECKED APPROVED DATE SCALE NTS MMU MICHAEL SUBY JITHIRAJ P <i>S.M. TS</i> <i>[Signature]</i> 12-06-2025											
1 2 3 4 5 6 7 8 9 10 11 12											

BOM

SL.NO	ITEM	SIZE	PR.RATING	QTY	DESIGN STD.	MATERIAL	REMARKS
1	PIPE	50NB	SCH 40	77M	B 36.10	A 333 Gr.1	
2	PIPE	40NB	SCH 80	51M	B 36.10	A 333 Gr.1	
3	PIPE	80NB	SCH 40	7.7M	B 36.10	A 333 Gr.1	
4	PIPE	25NB	SCH 40	2.5M	B 36.10	A 333 Gr.1	
5	LONG RAD. 90 DEG ELBOW	50NB	SCH 40	6 NOS	B 16.5	A 420 WPL6	FLANGED
6	LONG RAD. 90 DEG ELBOW	50NB	SCH 40	18 NOS	B 16.9	A 420 WPL6	
7	LONG RAD. 90 DEG ELBOW	40NB	SCH 80	6 NOS	B 16.9	A 420 WPL6	
8	LONG RAD. 90 DEG ELBOW	80NB	SCH 40	8 NOS	B 16.9	A 420 WPL6	
9	EQUAL TEE	50NB	SCH 40	15 NOS	B 16.9	A 420 WPL6	
10	UNEQUAL TEE	80 x 80 x 40NB	SCH 40	6 NOS	B 16.9	A 420 WPL6	
11	UNEQUAL TEE	50 x 50 x 25NB	SCH 40	11 NOS	B 16.9	A 420 WPL6	
12	UNEQUAL TEE	40 x 40 x 25NB	SCH 40	6 NOS	B 16.9	A 420 WPL6	
13	ECCENTRIC REDUCER	80 x 50NB	SCH 40	14 NOS	B 16.9	A 420 WPL6	
14	ECCENTRIC REDUCER	80 x 40NB	SCH 40	6 NOS	B 16.9	A 420 WPL6	
15	FLANGE	80NB	CL 300	1 NOS	B 16.5	A 350 LF2	
16	FLANGE	50NB	CL 300	59 NOS	B 16.5	A 350 LF2	
17	FLANGE	40NB	CL 300	12 NOS	B 16.5	A 350 LF2	
18	BLIND FLANGE	80NB	CL 300	1 NOS	B 16.5	A 350 LF2	
19	BLIND FLANGE	50NB	CL 300	2 NOS	B 16.5	A 350 LF2	
20	BALL VALVE	50NB	CL 300	14 NOS		A 350 LF2	
21	BALL VALVE	40NB	CL 800	6 NOS		A 350 LF2	SW
22	BALL VALVE	25NB	CL 800	18 NOS		A 350 LF2	SW
23	BOLT & NUT			AS REQD.		A 320 Gr.L7 / A 194 Gr.4	STUD BOLT WITH 2 HEAVY HEX.NUTS
24	NIPPLE	15NB		7 NOS			
25	SAFETY VALVE	80NB		1 NOS			

NOTES

1) THE QTY SHOWN ABOVE IS ONLY INDICATIVE.

ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED

DRAWN
PREPARED
CHECKED
APPROVED

DATE

SCALE

NTS

JITHINRAJ

12-06-2025

NTS

THE FERTILISERS AND - CHEMICALS TRAVANCORE LTD.

COCHIN - DIVISION

AMBALAMEDU

KERALA

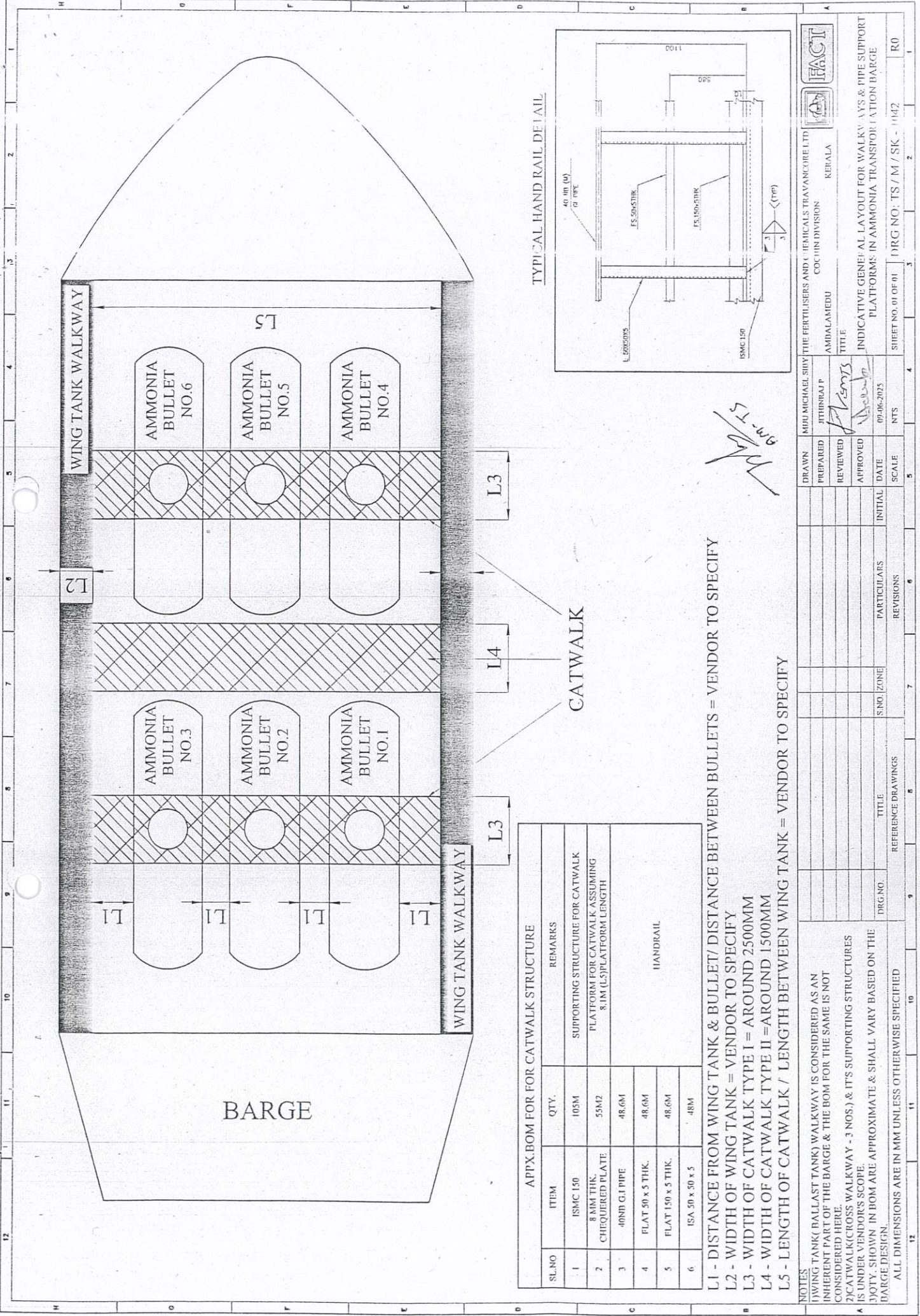


INDICATIVE GENERAL LAYOUT FOR AMMONIA PIPING IN AMMONIA TRANSPORTATION BARGE

SHEET NO. 07 OF 02

TS / M / SK - 697

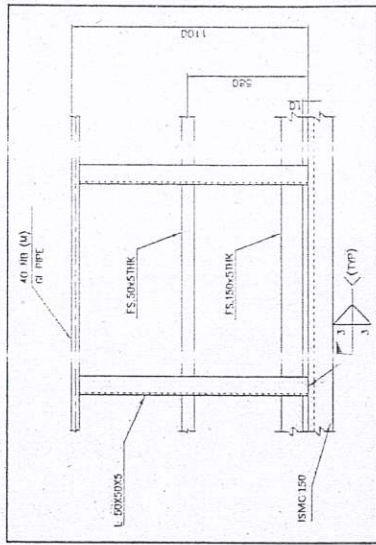
R6



APPX.BOM FOR FOR CATWALK STRUCTURE			
SL.NO	ITEM	QTY.	REMARKS
1	ISMC 150	105M	SUPPORTING STRUCTURE FOR CATWALK PLATFORM FOR CATWALK ASSUMING 8.1M (L5)PLATFORM LENGTH
2	8 MM THK. CHEQUERED PLATE	55M2	
3	40ND G.I PIPE	48.6M	
4	PLAT 50 x 5 THK.	48.6M	
5	PLAT 150 x 5 THK.	48.6M	
6	ISA 50 x 50 x 5	48M	

- L1 - DISTANCE FROM WING TANK & BULLET/ DISTANCE BETWEEN BULLETS = VENDOR TO SPECIFY
L2 - WIDTH OF WING TANK = VENDOR TO SPECIFY
L3 - WIDTH OF CATWALK TYPE I = AROUND 2500MM
L4 - WIDTH OF CATWALK TYPE II = AROUND 1500MM
L5 - LENGTH OF CATWALK / LENGTH BETWEEN WING TANK = VENDOR TO SPECIFY

TYPICAL HAND RAIL DETAIL



NOTES		DRAWN		MUDU MICHAEL SHIV		THE FERTILISERS AND CHEMICALS TRAVANCORE LTD		COCHIN DIVISION		KERALA	
1) WING TANK (BALLAST TANK) WALKWAY IS CONSIDERED AS AN INHERENT PART OF THE BARGE & THE BOM FOR THE SAME IS NOT CONSIDERED HERE.		PREPARED		JITHENDRA P		AMDALAMEDU		TITLE		INDICATIVE GENERAL LAYOUT FOR WALKWAYS & PIPE SUPPORT PLATFORMS IN AMMONIA TRANSPORTATION BARGE	
2) CATWALK (CROSS WALKWAY - 3 NOS.) & ITS SUPPORTING STRUCTURES IS UNDER VENDORS SCOPE.		REVIEWED		[Signature]		DATE		09.06.2023		SHEET NO. 01 OF 01	
3) QTY. SHOWN IN BOM ARE APPROXIMATE & SHALL VARY BASED ON THE BARGE DESIGN.		APPROVED		[Signature]		SCALE		NTS		DRG NO: TS / M / SK - 1042	
ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED		PARTICULARS		S.NO.		ZONE		REVISIONS		R0	
		TITLE		REFERENCE DRAWINGS							
		DRG NO.									

ROUTE FOR LAG TRANSPORTATION BY BARGE

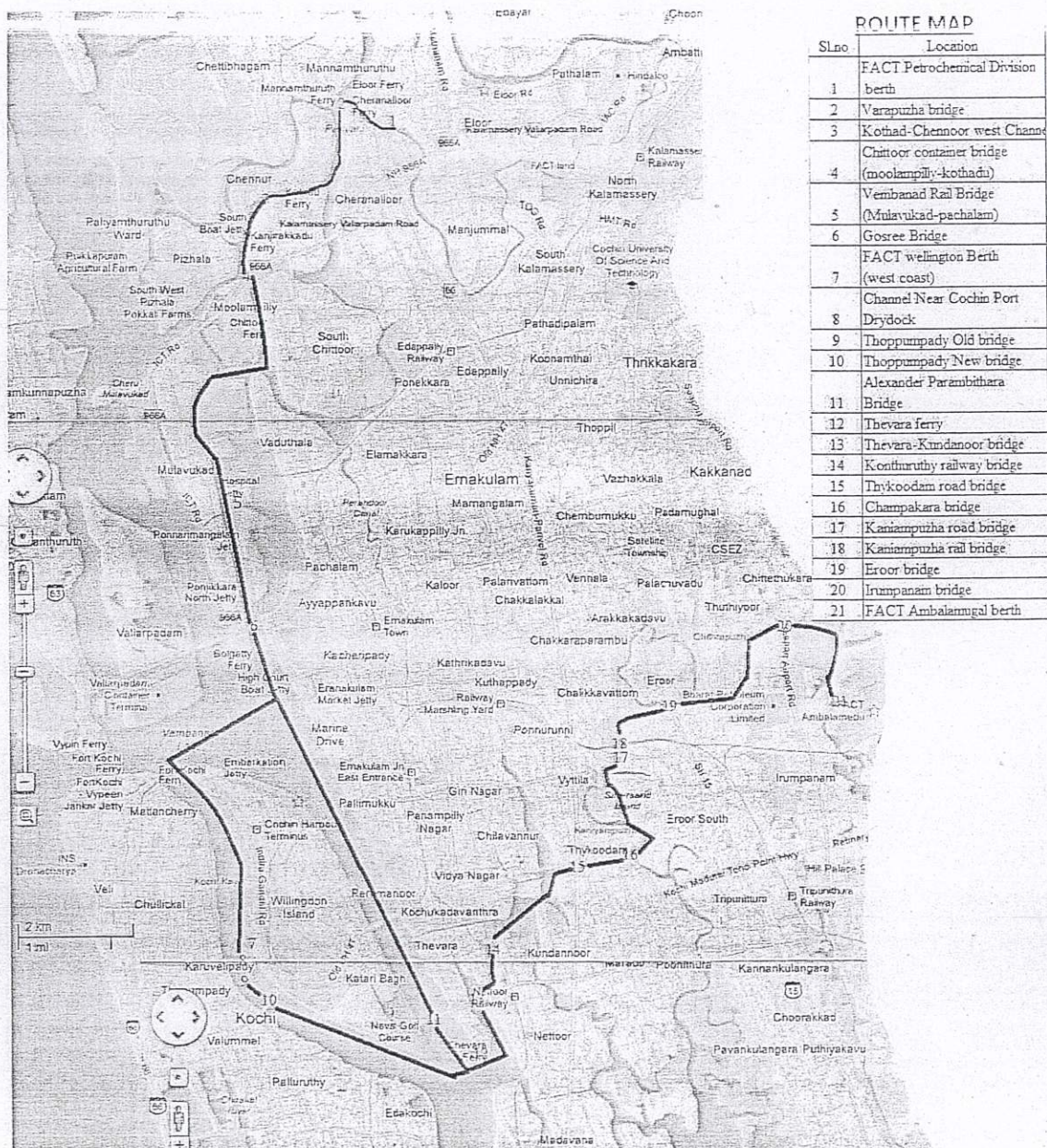


Fig.1 Map Showing Proposed Route for LAG Transportation by Barge


SMTS

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DGM (TS)

AM-TS

DATA SHEET	TECHNICAL SPECIFICATIONS FOR POLYURETHANE FOAM INSULATION FOR AMMONIA PIPING	Spec No: CD-TSD-2025-07	
		Date: 09.06.2025	Ref. doc: 02ES042/2010

1.REQUIREMENT OF COLD INSULATION

Cold insulation is required to be provided on Piping to meet the following requirements:

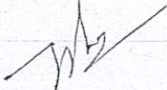
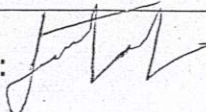
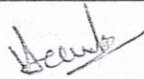
- To maintain process / operating temperature.
- To prevent ingress of heat from external source/atmosphere.
- To avoid surface condensation

2.INSULATION MATERIALS

- The material of insulation shall be Polyurethane foam.
- Material of insulation shall be non absorbent with a closed cell structure to ensure non-permeability of moisture / water vapour.
- Material of insulation shall be fungus and vermin proof.
- Insulation material shall not contain chemicals, which may be harmful to the equipment or piping or to the protective coating at ambient or service temperatures in wet or dry condition.
- Insulation material used for austenitic steel equipment and piping shall be free from water-soluble chlorides and other harmful chemicals.

3.POLYURETHANE FOAM (PUF)

- Polyurethane foam (PUF) may be used for insulation of equipment and piping either as preformed sections or cast-in-situ.
- Polyurethane foam shall be of rigid preformed cellular urethane foam and self-extinguishable type in accordance with ASTM-C 591, Type II, Gr.2.
- The foam shall be formulated in such a way that it shall be of self extinguishing quality which shall not cause fire to spread under any circumstances.
- The finished foam, in the form of sections, slabs or cast-in-situ, shall be of uniform closed cell structure, free from unreacted material, shrinkage and distortion.
- Density of finished foam shall be approximately 45 Kg/m³.
- Thermal conductivity of the finished polyurethane foam shall not exceed 15 Kcl/hr deg C at 10 deg C mean temperature after ageing.
- Closed cell content of finished PUF shall be at least 95% by volume.
- Maximum permeance of finished PUF shall be 4.0 gms/m. 24h.mm Hg.

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FACT – COCHIN DIVISION		TECHNICAL SERVICES

DATA SHEET	TECHNICAL SPECIFICATIONS FOR POLYURETHANE FOAM INSULATION FOR AMMONIA PIPING	Spec No: CD-TSD-2025-07	
		Date: 09.06.2025	Ref. doc: 02ES042/2010

- Resistance of 10% compression of finished PUF at ambient temperature shall be 1.5 Kg/cm

4. MULTILAYER INSULATION

When thickness of insulation exceeds 60mm, the insulation may be applied with multi layers, with all joints staggered. Each layer of insulation shall be secured by metallic banding. All cracks and voids in the insulation shall be completely sealed by using the mastic bedding as indicated below.

No. of layers to be employed shall determined as given below:

Insulation thickness	No. of layers
Up to 60 mm	1
Up to 120 mm	2
Above 120mm	3

4.1 MASTIC BEDDING

Insulating sections and slabs shall be bedded in non-setting mastic to eliminate air pockets. The same mastic shall be used for ensuring vapour tight joints between adjacent sections/slabs.

5. VAPOR BARRIER

Polyurethane foam insulation shall be completely covered with a continuous vapour tight layer to prevent permeation of vapour into the insulating material.

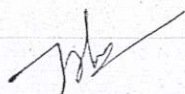
6. FILLING OF VOIDS

Polyurethane dust mixed with specified adhesive shall be packed tightly so as to fill voids and contractions on PUF insulation.

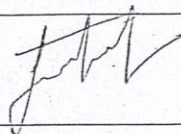
ALUMINIUM CLADDING

- Vapour barrier of PUF insulation shall be protected by aluminium cladding specified below:
- METAL CLADDING - Commercial quality aluminium jacketing conforming to IS 737 shall be used for all equipment and piping. Thickness of cladding sheets shall be as indicated in table. 1.
- Aluminium cladding shall be bent to shape grooved & properly riveted by using pop rivets.

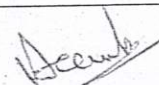
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FACT – COCHIN DIVISION

TECHNICAL SERVICES

DATA SHEET	TECHNICAL SPECIFICATIONS FOR POLYURETHANE FOAM INSULATION FOR AMMONIA PIPING	Spec No: CD-TSD-2025-07	
		Date: 09.06.2025	Ref. doc: 02ES042/2010

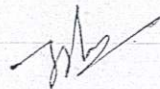
- All joints of the cladding shall overlap aluminium of 50 mm and shall be arranged in such a way as to shed water. Joints shall be offset between pieces.
- Cladding shall be secured to aluminium bands of size 20 x 3 mm. Which are provided at a gap or 450 mm along the circumference.
- All joints in the cladding shall sealed water tight by using seating compound or tapes as described below:
- SEALING COMPOUND - To ensure perfect water proofing, cladding joints shall be packed with sealing materials, which may either be in the form of bituminous mastic sealing compound or fibre based bituminous felt strips. Sealing compound shall be suitable to withstand the temperature of insulation to seal the joints.

8. PIPING INSULATION

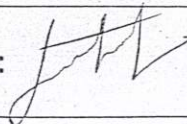
8.1 GENERAL

- External surfaces of pipes shall be cleaned well with wire brush (CS brush for CS pipes and SS brush for SS pipes) to remove all dirt rust and contaminating material and wiped well.
- If painting is provided for specific reasons the insulation contractor shall not carry out any harsh cleaning and shall ensure that painting is undisturbed.
- All pipes and supports shall be permanently set before commencement of insulation. Disturbed pipes and supports shall be restored to their original location and alignment when insulation is complete.
- All insulation shall be applied when piping is at ambient temperature.
- Spacer rings for supporting metal cladding shall be installed by the contractor.
- Insulation in the form of preformed pipe sections shall be applied over the pipe without spacer rings. On top of each layer wire netting shall be applied and tightly butted against each other so that the wires interlock both longitudinally and circumferentially. The wire net joints shall be stitched with 20 swg soft galvanised iron wire.
- At un-insulated flanges, insulation shall be terminated at suitable distance from the flange so that the flange bolts can be withdrawn without disturbing the insulation.
- In case of vertical piping, insulation supports shall be installed by the insulation contractor. These shall consist of spacer rings at 4 metres intervals clamped to the pipes.

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DATA SHEET	TECHNICAL SPECIFICATIONS FOR POLYURETHANE FOAM INSULATION FOR AMMONIA PIPING	Spec No: CD-TSD-2025-07	
		Date: 09.06.2025	Ref. doc: 02ES042/2010

- Insulation of piping shall be complete with mastic bedding, sealing compound, vapour barrier, filling of voids and metal cladding as described earlier in the specification.
- Insulation of flanges and valves shall be provided only when specifically mentioned in the line schedule/work order. When specified, removable covers shall be provided over all flanges and valves. The insulation shall be preformed, filled in aluminium sheet boxes, and fitted with quick release clips.

8.2 PIPING INSPECTION WINDOWS

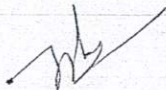
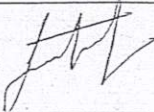
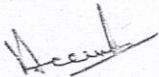
- Plug type inspection windows shall be provided on all insulated pipelines having size 50 mm and above.
- The size of the inspection windows shall be as indicated below:

Pipe dia (mm)	Window dia (mm)
50	35
80	45
100	75
150 and above	100

- Inspection windows shall be provided at the bottom of the pipelines.
- There must be at least one inspection window within a span of 10m.
- At least 50% of the bends shall be provided with inspection windows.
- In case of critical pipelines, more number of inspection windows may be provided at the discretion of the Engineer-in-charge.
- Sheet metal covering of inspection windows shall be of the same gauge as that of insulation cladding. These covers are to be fixed on with 6 mm self-tapping screws.
- The plug shall be of perfect fit into the inspection window and shall ensure leak tightness.

9. SAFETY

The insulation contractor shall provide adequate protective appliances, like gloves, masks, glasses and clothing to workmen carrying out the insulation work for protection against any hazardous / toxic chemicals and gases. Sufficient protection methods / gadgets shall also be deployed at the place of insulation.

PRPD. BY : 	CHKD. BY : 	APPRD. BY : 
FACT – COCHIN DIVISION		TECHNICAL SERVICES

DATA SHEET	TECHNICAL SPECIFICATIONS FOR POLYURETHANE FOAM INSULATION FOR AMMONIA PIPING	Spec No: CD-TSD-2025-07	
		Date: 09.06.2025	Ref. doc: 02ES042/2010

10.GUARANTEEE

- The insulation contractor shall furnish authentic test certificates to confirm that all materials offered conform to the requirements of this specification and standards mentioned therein.
- All insulation works shall be guaranteed against defective materials and bad workmanship for the period specified in enquiry / order.

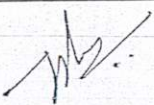
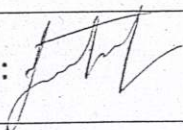
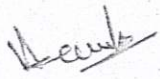
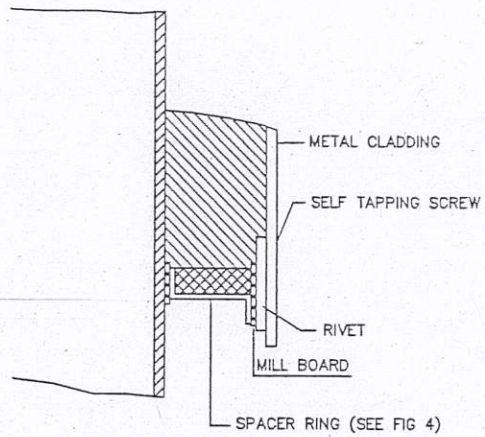
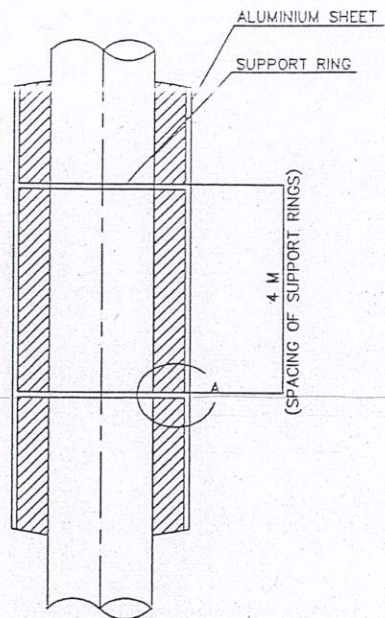
PRPD. BY : 	CHKD. BY : 	APPRD. BY : 
FACT – COCHIN DIVISION		TECHNICAL SERVICES

TABLE 1 – THICKNESS OF ALUMINIUM CLADDING SHEETS

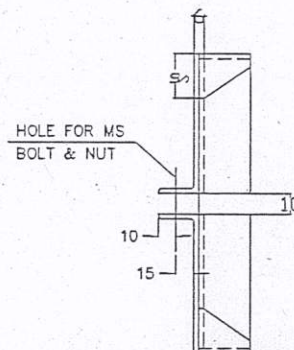
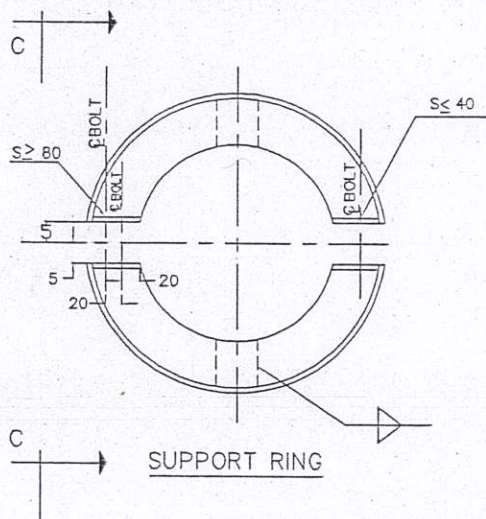
Item	Size (mm) Or Dia	Type of aluminium sheeting	
		Vertical	Other portions
Equipment	≤ 350 NB	24 SWG plain	24 SWG plain
	> 350 NB	22 SWG Corrugated	24 SWG plain
	Tanks	22 SWG Corrugated	22 SWG plain for roof and 24 SWG plain for other parts
Piping	≤ 350 NB	24 SWG plain	22 SWG plain
	> 350 NB	24 SWG plain	24 SWG plain
	Valves, flanges etc.	24 SWG plain	22 SWG plain

TABLE 2 – THICKNESS OF COLD INSULATION

Nom: Dia $\leq$	Insulation Thickness (mm) for Temperature Deg.C						
	-40	-30	-20	-10	0	10	20
20	60	60	60	50	50	40	40
65	70	70	70	60	60	50	50
80	80	80	80	70	70	50	50
150	90	90	90	80	80	50	50
400	100	100	100	80	80	50	50
500	110	110	110	80	80	50	50
900	120	120	120	80	80	50	50
Above 900	130	130	130	80	80	50	50



DETAIL A



VIEW C-C

A DIMENSION TO MATCH OD OF PIPE
OR OD OF VESSEL.
S INSULATION THICKNESS.

SUPPORT FOR VERTICAL INSULATED PIPING

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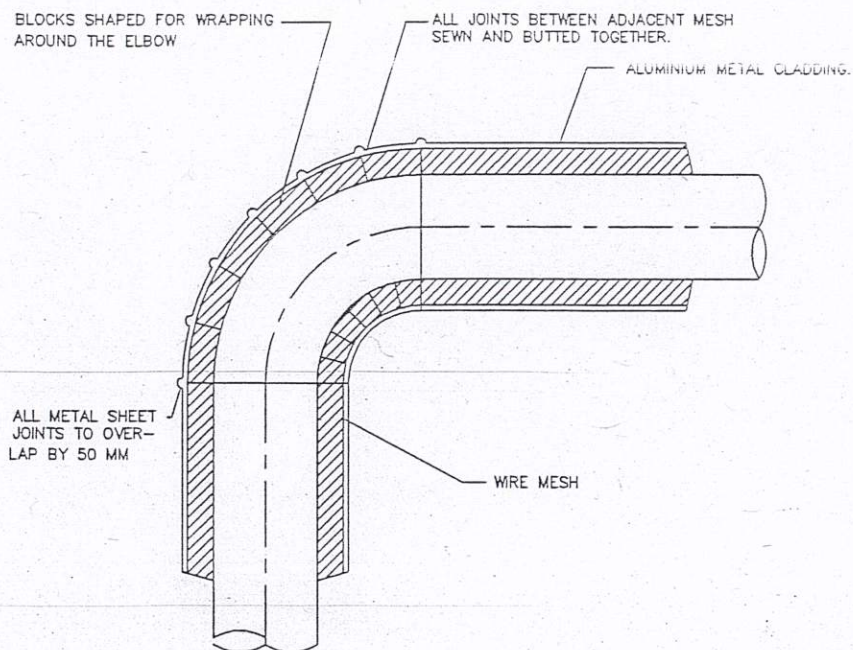
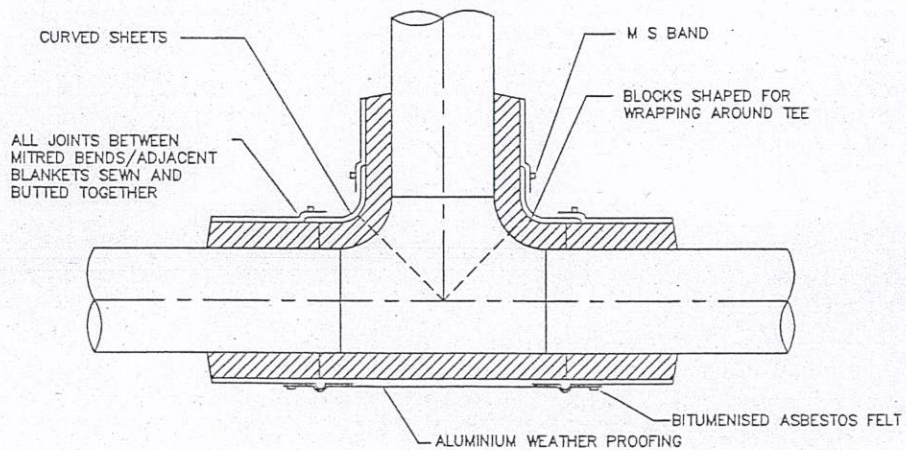


FIG 5 WELDED ELBOW INSULATION

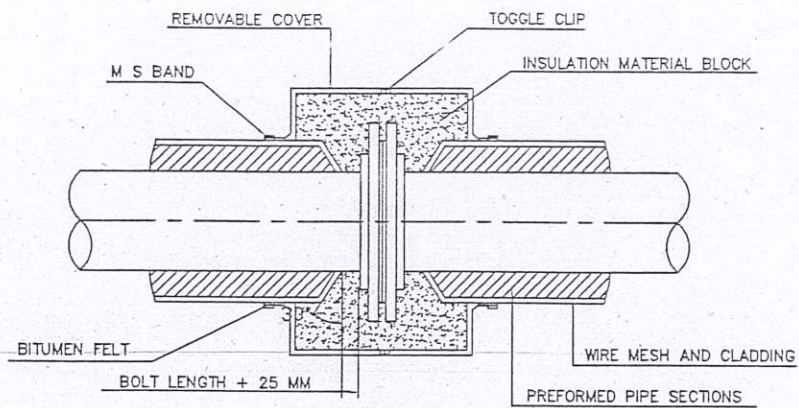


TEE INSULATION

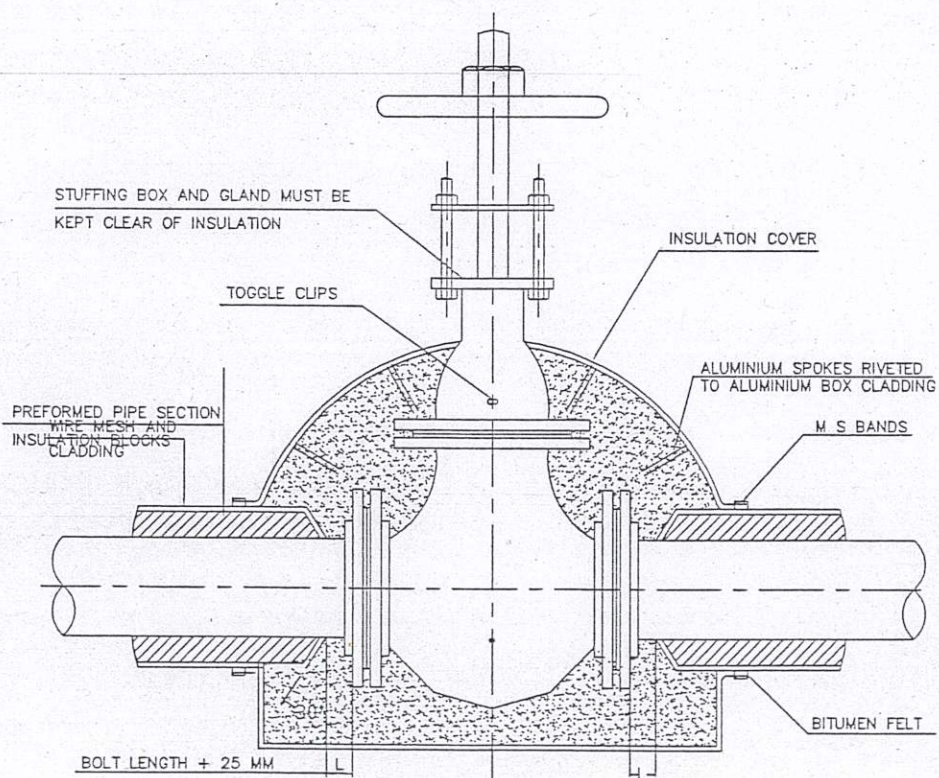
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FLANGE INSULATION

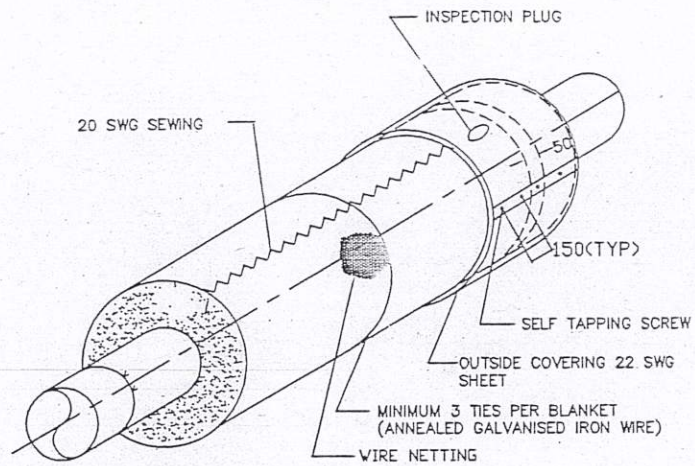


VALVE INSULATION

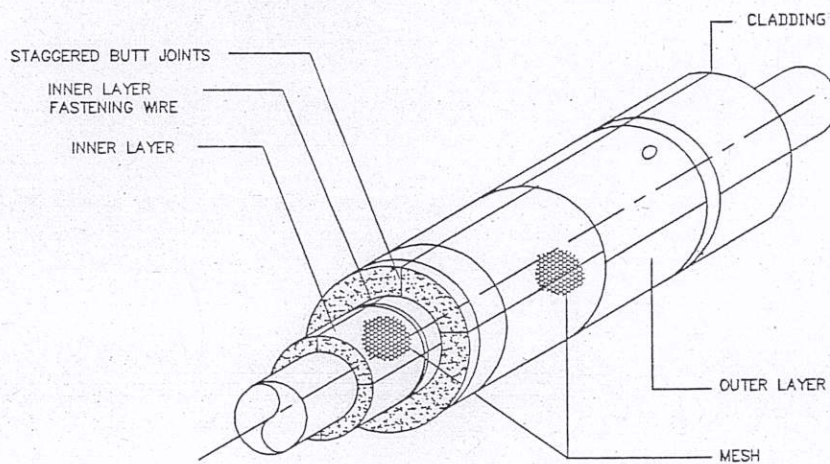
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SINGLE LAYER INSULATION FOR PIPING



MULTIPLE LAYER INSULATION FOR PIPING

ftt

nb

Scrub