



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

**DELHI AVIATION FUEL FACILITY PRIVATE LIMITED
AVIATION FUELLING STATION
SHAHBHAD MOHAMMADPUR
IGI AIRPORT
NEW DELHI-110061**



TENDER NO: DAFFPL/FF/PCV/2021-22/02

INVITING TENDER FOR DESIGN, FABRICATION & SUPPLY OF 02
NOS PIT CLEANING VEHICLES

BID DUE DATE & TIME: 1500 Hrs. IST on 23rd July 2021

OPENING OF TECHNICAL BIDS: 1100 Hrs. IST on 24th July 2021



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PRICE BID FORMAT

NOTE: BIDDERS ARE REQUESTED TO SIGN AND STAMP ALL THE PAGES OF THE TENDER DOCUMENT AND SEND THE SAME BACK IN THEIR OFFER AS A TOKEN OF UNCONDITIONAL ACCEPTANCE OF TENDER FIRMS.

THE DEVIATIONS, IF ANY, SHOULD BE MENTIONED SEPARATELY ON BIDDER’S LETTER HEAD IN TECHNICAL BID. THE DEVIATIONS MENTIONED ANYWHERE ELSE SHALL NOT BE CONSIDERED. IN ABSENCE OF DEVIATION SHEET IT WOULD BE CONCLUDED THAT BIDDER HAS ACCEPTED THE TENDER TERMS WITHOUT ANY DEVIATIONS. CORRECTIONS IN TENDER DOCUMENT WILL NOT BE ACCEPTED.



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TENDER NOTICE DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

INVITING TENDER FOR DESIGN, FABRICATION & SUPPLY OF 02 NOS PIT CLEANING/QC VEHICLES AS PER SPECIFICATIONS

TENDER NO: DAFFPL/FF/PCV/2021-22/02

Delhi Aviation Fuel Facility (P) Ltd (DAFFPL) invites bids from eligible bidders for DESIGN, FABRICATION & SUPPLY OF 02 NOS PIT CLEANING/QC VEHICLES.

Brief Scope of work:

We intend to procure 02 Nos Pit Cleaning/QC Vehicles as per specification as mentioned. Scope of supply includes DESIGN, FABRICATION & SUPPLY OF 02 NOS PIT CLEANING SAMPLING VEHICLES for DAFFPL facility, New Delhi.

Bid Security (EMD):	As mentioned in the Tender document
Date, Time & Venue for Voluntary Pre-bid Meeting:	09 th July 2021; 1100 HRS (IST) at DAFFPL, Aviation Fueling Station, Shahabad Mohammadpur, New Delhi-110061
Last Date of Submission of Queries	Upto 18:00 HRS (IST) on 12 th July 202.
Bid Due Date, Time & Place of Submission:	Upto 15:00 HRS (IST) on 23 rd July 2021, at e-Tendering Portal of DAFFPL

Detailed Invitation for Bids (IFB) along with Pre-qualification Criteria, Bid Document Corrigenda can be viewed and downloaded from DAFFPL's website: <http://www.daffpl.enivida.com>.

Chief Executive Officer
DAFFPL, New Delhi



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

CHAPTER 1: INTRODUCTION (COVERING NOTE)

Delhi Aviation Fuel Facility Private Limited (DAFFPL) is a Joint Venture comprising Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL), and Delhi International Airport (P.) Ltd. (DIAL). We provide the infrastructure aimed at ensuring an uninterrupted flow of Aviation Turbine Fuel (ATF) to all type of aircrafts at the Indira Gandhi International Airport, New Delhi (IGI Airport) as per international benchmarking.

The bidder/ contractor shall refer to various sections of this tender document for detailed scope of work. It is contractor's responsibility to execute the job in all respects as per specification furnished by consultant / owner and as per applicable codes, standards & in line of statutory requirements.

The field circumstances shall also be taken into consideration and methods suitable to the site conditions shall be adopted with concurrence of the Engineer-in-charge and in line with manuals, instructions of respective equipment and specified codes and standards. The successful accomplishment of the project is greatly influenced by the team work, workmanship of the workers and supervisors.

The Contractor shall employ only such workers and supervisors who have considerable experience of similar work and who can work, temperamentally in good harmony and co-operation.

Delhi Aviation Fuel Facility Private Limited (DAFFPL) invites tenders in prescribed tender form under two-bid system. For viewing details including EMD, BID QUALIFICATION CRITERIA etc. please visit our e-Tendering web site <http://www.daffpl.enivida.com>

The bids are to be submitted on the e-Tendering portal of **Delhi Aviation Fuel Facility Private Limited (DAFFPL)**.



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1. The Tender is floated in Two Bid system consisting of Technical Bids (Bid Qualification Criteria - BQC, Technical plus Commercial) and Price Bids.

Part-I : Bid Security / EMD in accordance with tender document.
Part-II : BQC (Bid qualification criteria), Technical & commercial Bid, duly filled in & along with all supporting as requested to be submitted/uploaded on DAFFPL e-tendering portal.
Tender Box.
Part -III : Price Bid.

2. The bidder should be able to construct the entire size/type/quantity bid by them. Bidders cannot bid for part items or part quantity.
3. Firstly, the technical bid (BQC & Techno commercial bids) shall be opened. The Bids shall be initially scrutinized by a team as per tender requirements of BQC (Bid qualification criteria). Technical cum commercial bids of only those vendors who qualify the BQC will be processed further. The price bids of only techno-commercially qualified bidders will be opened, evaluated and shortlisted for Placement of Work Order.
4. The bids submitted should be valid for **four months** from the due date of bid submission for Owner's acceptance. Once accepted it will remain firm till completion of contracts/orders.
5. We request the bidder to carefully go through all tender documents before submitting the offer. Please note that any exceptions or deviations to the tender document are necessarily to be recorded in the attached deviation statement only. Any exceptions/deviations brought out elsewhere in the bid shall not be considered.
6. The bidders may be invited for a presentation to DAFFPL during Techno-commercial evaluation before price bid opening.
7. The bidders to provide their bank details/ PAN / Goods & Service Tax Registration No. / VAT registration No., as applicable for updating vendor master file. You are also requested to keep us informed of any change in address / status of your business / contact details including email address etc.
8. Party can quote with the deviations as referred in Point No.6 above. Please refer query end date / time in tender calendar after which no query posted by bidder shall be considered. However, DAFFPL reserves the right to respond the queries after cutoff date / time mentioned in tender calendar.



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9. Please note that queries related to scope of job, tender specifications, terms & conditions etc., should be submitted on e-tender portal before the query closing date. Any modification in the bid document that may become necessary as a result of the Pre-Bid meeting shall be made by the owner exclusively through the issues of corrigendum/ addendum posted at e-tender portal.
10. **DAFFPL suggest all bidders to visit DAFFPL fuel farm for understanding philosophy of existing pit cleaning vehicles on or before pre bid meeting date.**
11. UNSOLICITED POST BID MODIFICATION
Bidders are advised to quote strictly as per terms and conditions of the Bidding Document. After tender submission due date & time/ extended due date & time (as the case may be) the bidders shall not make any subsequent price changes, whether resulting or arising out of any technical / commercial clarifications sought/allowed on any deviations or exceptions mentioned in the bid.
12. EMD & Techno Commercial bid shall be opened on or after the date mentioned on tender opening date on e-tender portal. Price Bid of only those bidders whose offer is found meeting both BQC & techno-commercially acceptable, shall be opened on a later date as decided by DAFFPL.
13. DAFFPL reserves the right to accept any one or more tender in whole or in part or reject any or all tenders without assigning any reason. DAFFPL reserves right to accept any or more tenders in part. Decision of DAFFPL in this regard shall be final and binding on the bidder.

QUERIES AND CLARIFICATIONS: Any query or clarification with regard to this tender may please be referred to below address & phone nos. on any working day during office working hours.

Mr. Manish Kumar Project Officer manish.kumar@daffpl.in , vishvajit@daffpl.in 9810640818
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14. GOVERNING LAWS: The laws of Union of India shall govern all matters concerning the tender. Any issue arising related to the tender, or the selection process shall be adjudged by the courts in Delhi alone.

15. A Pre-bid meeting shall be conducted is scheduled for **09th July 2021 at**



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1100 Hrs IST at the office of DAFFPL, New Delhi. All prospective bidders can participate in the same. Any clarification regarding tender shall be sorted out during the pre-bid meeting.

- a. The purpose of the pre-bid meeting is to clarify any doubts of the BIDDER on the interpretation of the provisions of tender.
- b. Bidder(s) are requested to submit their queries, mentioning form name, clause no. & clause through e-tender portal as per schedule in order to have fruitful discussions during the meeting.
- c. All the Bidder(s) are requested to attend the pre-bid meeting to be held at DAFFPL Office as per schedule.

- 16. Earnest Money Deposit (EMD) (also referred to as Bid Security):** Bidder shall be required to submit the Earnest Money Deposit (EMD), either in the form of Bank guarantee as per format (provided as Annexure) or bank transfer (IMPS/RTGS) in favor of Delhi Aviation Fuel Facility Private Limited. The EMD in either form has to be submitted on or before the due date & due time of bid submission of this tender with a covering note mentioning the tender no.

Direct bank transfer for Tender Fee and Earnest Money Deposit to DAFFPL account as detailed below. The UTR Reference and date shall be provided in the Tender portal for DAFFPL verification.

Name of Account	DELHI AVIATION FUEL FACILITY PRIVATE LTD.
Account No.	39040531887
Name of Branch	Corporate Accounts Group-II Branch, New Delhi
IFSC Code	SBIN0017313
SWIFT	SBININBB824
MICR	110002562
PAN	AAACS8577K
TAN	DELS55939C
BSR	0017313

- a. The bidders not submitting EMD by due time & date shall be rejected & their bids shall not be evaluated further.
- b. **The EMD amount shall be 1.0 (One) Lakh INR**
- c. Firms registered with National Small Scale Industries (NSIC)/MSME of India are exempted from submission of bid security. Central Public Sector Enterprises of India and Firms registered with Nation Small Scale Industries Corporation (NSIC) of India are exempted from submission of Bid Security. Central Public Sector Enterprises are requested to give a self-declaration on their letter head to this



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effect. Bidders registered with NSIC of India are also requested to submit self-declaration on their letter head to this effect along with a copy of their Valid Registration certificate, specifying limit of volume and other details which should be submitted.

17. **Delivery Period:** Time is the essence of the contract. The total order quantity (02 Nos) of pit cleaning vehicles should be delivered within **05 (Five) months** from the date of Letter of Intent/notification of award. Delivery period shall be counted from the date of notification of award (Letter/Fax/e-mail of Intent) up to the date of receipts of pit cleaning vehicles at DAFFPL Fuel Farm, New Delhi.
18. The contractual delivery period of 05 months is inclusive of all the lead time for procurement of chassis, raw materials, the manufacturing, inspection / testing, packing or any other activity whatsoever required to be accomplished for effecting the delivery at the required delivery point.

THE FORMS /ATTACHMENTS TO THIS TENDER ARE AS UNDER:

1. Covering Note – CHAPTER: 1
2. Instructions To Bidders - CHAPTER: 2
3. Bid-Qualification Criteria - CHAPTER: 3
4. Performance of Work – CHAPTER: 4
5. Scope of Work- CHAPTER: 5
6. General Purchase Conditions- CHAPTER: 6
7. Technical Specification Documents - (Attached as Annexure I)
8. Annexure attached are as follows:
 - Annexure II – DEVIATION SHEET
 - Annexure III – DECLARATION SHEET
 - Annexure IV – FORMAT FOR DRAFT BANK GUARANTEE IN LIEU OF BID SECURITY (EMD)
 - Annexure V - FORMAT DRAFT COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT/PERFORMANCE GUARANTEE
 - Annexure VI – FORM OF LETTER OF UNDERTAKING
 - Annexure VII – DECLARATION TO BE SUBMITTED ALONGWITH Technical BID
 - Price Bid

Thanking you,
Yours faithfully,
For DELHI AVIATION FUEL FACILITY (P) LTD.
Chief Executive Officer



CHAPTER 2: INSTRUCTIONS TO BIDDERS

1. The bidder shall bear all costs associated with the preparation and submission of the bid and Owner will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
2. Vendor is requested to submit their bids taking full notice of all the technical specifications, terms and conditions, forms & attachments to this tender. Bids must be submitted only through e-Tender portal.
3. Owner reserves the right to accept / reject any or all bid qualification documents at their sole discretion without assigning any reason whatsoever.
4. Owner is not responsible for any delays from bidder end.
5. Owner reserves the right to make any changes in terms and conditions of purchase before due date of bid submission and to reject any or all bids received incomplete.
6. Undertaking by the bidder:
 - a. I/we hereby undertake that the statements made herein/information given in the bids through e-Tendering system/annexure/forms referred are true in all respects and that in the event of any such statement or information being found to be incorrect in any particular, the same may be construed to be a misrepresentation entitling DAFFPL to avoid any resultant contract.
 - b. I/we further undertake as and when called upon by DAFFPL to produce, for its inspection, original(s) of the document(s) of which copies have been annexed hereto.
7. Owner, at its discretion reserves the right to verify information submitted by the bidders.
8. Bidder to submit documents/information to satisfy the bid qualification criteria. Bidders should also be able to produce further information as and when required by DAFFPL with in a time limit as specified by DAFFPL.
9. DAFFPL reserves their right to negotiate the quoted prices with lowest bidder.



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10. Bidders would be qualified based on data and documents submitted by them.
11. Owner's decision on any matter regarding short listing of vendors shall be final and no corresponding in this regard will be entertained.
12. The vendors who are on IOCL/BPCL/DIAL holiday list or delisted will not be considered.
13. The bidder is expected to examine all instructions, forms, attachments, terms and specifications in the tender document. The entire tender document together with all its attachments thereto, shall be considered to be read, understood and accepted by the bidder, unless deviations are specifically stated seriatim by the bidder. Failure to furnish all information required in the tender document or submission of a bid not substantially responsive to the tender documents in every respect will be at bidder risk and may result in the rejection of his bid. The bidder scope of supplies as specified in the material requisition shall be in strict compliance with the scope detailed therein and in the bid document.
14. Bidders in their own interest shall ensure that they submit their bid, complete in all respects, well within the specified bid due date and time. No relaxation shall be given for delay due to any unforeseen event in submission of bid.
15. At any time prior to the bid due date, we may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bid document. The amendment will be notified through our portal for e-tender to all prospective bidders and will be binding on them. In order to afford prospective bidder, reasonable time in which to take the amendment into account in preparing their bids, we may, at our discretion, extend the bid due date.
16. The bid prepared by the bidder and all correspondence/ drawings and documents relating to the bid exchanged by bidder and the owner shall be written in ENGLISH language, provided that any printed literature furnished by the bidder may be written in another language so long as accompanied by an ENGLISH translation, in which case, for the purpose of interpretation of the bid, the ENGLISH translation shall govern.
17. Declaration with the bid qualification criteria that bidder has not been banned or delisted by any Government or quasi Government agencies



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or Public Sector Undertaking (PSU) as per declaration format (provided as annexure) of the tender document should be submitted along with the bid.

18. Bidders are advised to submit bids based strictly on the terms & conditions and specifications contained in the tender document and not to stipulate any deviations. Each Bidder shall submit only one bid. A Bidder who submits more than one bid will be rejected. Alternative bids will not be accepted.
19. The Owner may, at its discretion, extend the bid due date, in which case all rights and obligations of the Owner and the Bidders, previously subject to the bid due date, shall thereafter be subject to the new bid due date as extended. The same will be hosted in the e-tendering portal.
20. Bids shall be kept valid for 4 months from the bid due date. A bid valid for a shorter period shall be considered as non-responsive and rejected by the Owner. Notwithstanding above, the Owner may solicit the Bidder consent to an extension of the period of bid validity. The request and the responses thereto shall be made in writing. The EMD (bid security) shall also be accordingly extended.
21. Telex/ Telegraphic/ Telefax / E-mail/Physical offers will not be considered and shall be rejected.
22. No bid shall be modified subsequent to the due date & time or extension, if any, for submission of bids. Bidder(s) to note that Price changes after submission of bid shall not be allowed. In case any bidder gives revised prices/price implication, his bid shall be rejected. No bid shall be allowed to be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder. Withdrawal of a bid during this interval shall result in the forfeiture of Bidder's EMD.
23. Bids that do not meet the Bid qualification criteria as specified in the bid document shall be rejected. A bid with incomplete scope of work and/or which does not meet the technical requirements as specified in the bid document, shall be considered as non-responsive and rejected. Conditional bids will be liable for rejection.
24. The Owner will examine the bids to determine whether they are complete, whether any computational errors have been made, whether



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the documents have been properly signed and whether the bids are generally in order.

25. The bids without requisite EMD and/or not in the prescribed Proforma and the time limit will not be considered and bids of such bidder(s) shall be rejected.
26. PRICE EVALUATION CRITERIA: As award is on overall landed lowest basis, part offers will be rejected. Bidder has to quote for all items in a lot for us to consider them.
27. Prior to the expiration of period of bid validity, the owner will notify the successful bidder in writing or by e-mail, that his bid has been accepted. The Notification of Award will constitute the formation of the Contract. Delivery Period shall be counted from the date of notification of award (Letter/Fax/e-mail of Intent).
28. Any efforts by a bidder to influence the owner/ in the owner bid evaluation, bid comparison or contract award decisions may result in the rejection of their bid.
29. ISSUE OF CONTRACT/ PURCHASE ORDER: After the successful bidder has been notified that his bid has been accepted, DAFFPL will send to such bidder a detailed contract/purchase order incorporating all the terms and conditions agreed between the parties. Within 15 days of receipt of the detailed purchase order, the bidder shall sign and return to the owner the duplicate copy of the order as a token of their acknowledgement.
30. Vigil Mechanism: DAFFPL has developed the Vigil Mechanism to deal with references/ grievances, if any, that is received from bidders who participated / intends to participate in the tender. The details of the same are available on our website www.daffpl.in
31. VERIFICATION BY OWNER: All statements submitted by bidder regarding experience, manpower availability, equipment and machinery availability etc., are subject to verification by the owner either before placement of order or after placement of order. If any data submitted by the bidder at the bid stage is found to be incorrect, the offer is liable to be rejected or the contract/order is liable to be terminated.
32. EVALUATION OF BIDS



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- a. Qualification of Bidder: The experience details and financial & technical capabilities of the bidder(s) shall be examined to determine whether the bidder(s) meet the Bid Qualification Criteria mentioned in the INVITATION FOR BIDS (IFB).
- b. The Owner will examine the bids to determine whether they are complete, any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.
- c. The bids without requisite Bid Security and/or not in the prescribed proforma will not be considered and bids of such bidder Bidder(s) shall be rejected.
- d. To assist in the examination, evaluation and comparison of technical bids, the owner/ may, at its discretion, ask the Bidder clarifications on the bid. The request for such clarifications and the response thereto shall be in writing.
- e. Prior to the evaluation and comparison of the bid, the owner will determine the substantial responsiveness of each bid to the bidding documents. For the purpose of this Article, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding document without material deviations or reservations. A material deviation or reservation is one which affects in any substantial way the scope, quality, or performance of the works or which limits in any substantial way, inconsistent with the bidding document, the DAFFPL's rights or Bidder's obligation under the contract and retention of which deviation or reservation would affect unfairly the competitive position of other bidders presenting substantially responsive bids. The owner's determination of bid responsiveness is to be based on the contents of the bid itself without recourse to the extrinsic evidence.
- f. A bid determined as substantially non-responsive will be rejected by the Owner and shall not subsequently be allowed by the Owner to be made responsive by the Bidder by correction of the non-conformity.

Note:

- 1) The Bid Shall be submitted in English Language Only**
- 2) For any Document submitted in any language other than English, the translation copy in English language shall be submitted.**



CHAPTER 3: BID-QUALIFICATION CRITERIA

Bidders need to meet following pre-qualification criteria to qualify for short-listing as a successful vendor, who would be considered for tendering process for the job of “Design, procurement of chassis, fabrication, supply, testing & commissioning of 02 Nos Pit Cleaning Vehicles for **DAFFPL.**”

Similar Works Experience:

Experience of having successfully completed similar works during last 7 years i.e. upto **31.03.2021** should be either of the following:

- One similar completed works each costing not less than the amount equal to **1,39,20,000.00.**
- OR**
- Two similar completed works costing not less than the amount equal to **Rs 87,00,000.00**
- OR**
- Three similar completed works each costing not less than the amount equal to **Rs 69,60,000.00**

Note:

- a. The value of completed job to be submitted by prospective bidders shall be compared with values as prescribed above. There shall be no deduction against Taxes.

DEFINITION OF SIMILAR WORKS:

Experience in successful completion of:

“Design, fabrication & supply of pit cleaning vehicles/aircraft refuellers.

Contractor not meeting the above similar work order definition need not apply.

Financial criteria for Job:

- Bidder shall have minimum average annual turnover of **Rs. 53.00 Lakhs** as per audited financial results in the preceding three financial/calendar years. “Turnover shall mean Consolidated Turnover in case of a Bidder having wholly owned subsidiaries”

Note: Turnover for this purpose should be as per audited P&L statement including Balance Sheet/ Published Account/ Profit & Loss Account



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Statement of the tenderer. However, if the tenderer is not required to get its accounts audited under Section 44AB of the Income Tax Act, 1961, certificate from a practicing Chartered Accountant towards the turnover of the tenderer along with copies of its income tax return should be obtained.

Total revenue as per schedule III of companies' act, 2013 (earlier revised schedule VI of companies Act, 1956) shall be considered as Turnover. Audited balance sheet / published accounts on calendar year basis shall also be acceptable. The financial statements copy must bear the registration number of the authorised chartered accountant and its seal. (This is not applicable for published annual reports).

- Both the above criteria (Technical & Financial) to be met for acceptance of the bid.

OTHER INFORMATION OF BQC

1. Parties who are affiliates of one another can decide which affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification. However up to 3 affiliates may make a joint bid as a consortium, and in which case the conditions applicable to a consortium shall apply to them. "Affiliate" of a Party shall mean any company or legal entity which:
 - a. Controls either directly or indirectly a Party, or
 - b. Which is controlled directly or indirectly by a Party; or
 - c. Is directly or indirectly controlled by a company, legal entity or Partnership which directly or indirectly controls a Party. "Control" means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.
2. Bids may be submitted by:
 - a. A single person/ entity (called sole bidder);
 - b. A newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;
 - c. A consortium (including an unincorporated JV) having a maximum of 3 (three) members;
 - d. An Indian arm of a foreign company.



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3. Fulfillment of Eligibility criteria and certain additional conditions in respect of each of the above 4 types of bidders are stated below, respectively:
- a. The sole bidder (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfill each eligibility criteria.
 - b. In case the bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfill each eligibility criteria or any one constituent member/promoter of such a JV shall fulfill each eligibility criteria. If the bid is received with the proposal that one constituent member/promoter fulfils each eligibility criteria, then this member/promoter shall be clearly identified and he/it shall assume all obligations under the contract and provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the member/ promoter to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.
 - c. In case the bidder(s) is/are a consortium (including an unincorporated JV), then the following conditions shall apply:
 - I. Each member in a consortium may only be a legal entity and not an individual person;
 - II. The Bid shall specifically identify and describe each member of the consortium;
 - III. the consortium member descriptions shall indicate what type of legal entity the member is and its jurisdiction of incorporation (or of establishment as a legal entity other than as a corporation) and provide evidence by a copy of the articles of incorporation (or equivalent documents);
 - IV. One participant member of the consortium shall be identified as the "Prime member" and contracting entity for the consortium;
 - V. This prime member shall be solely responsible for all aspects of the Bid/ Proposal including the execution of all tasks and performance of all consortium obligations;
 - VI. The prime member shall fulfill each eligibility criteria;
 - VII. a commitment shall be given from each of the consortium members in the form of a letter signed by a duly authorized officer clearly identifying the role of the member in the Bid



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and the member's commitment to perform all relevant tasks and obligations in support of the

- VIII. Prime/lead member of the Consortium and a commitment not to withdraw from the consortium;
- IX. No change shall be permitted in the number, nature or share holding pattern of the Consortium members after pre-qualification, without the prior written permission of the Owner.
- X. No change in project plans, timetables or pricing will be permitted as a consequence of any withdrawal or failure to perform by a consortium member;
- XI. Entities which are affiliates of one another are allowed to bid either as a sole bidder or as a consortium only;
- XII. Any person or entity can bid either singly or as a member of only one consortium.

- d. In case the bidder is an Indian arm (subsidiary, authorized agent, branch office or affiliate) of a foreign bidder, then the foreign bidder shall have to full fill each eligibility criteria. If such foreign company desires that the contract be entered into with the Indian arm, then a proper back to back continuing (parent company) guarantee shall be provided by the foreign company clearly stating that in case of any failure of any supply or performance of the equipment, machinery, material or plant or completion of the work in all respects and as per the warranties/ guarantees that may have been given, then the foreign company shall assume all obligations under the contract. Towards this purpose, it shall provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the foreign company to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the Indian arm or to render the same themselves so as to ensure completion of the contract when awarded, an undertaking not to withdraw from the contract till completion of the work, etc.



CHAPTER 4: PERFORMANCE OF WORK

1. EXECUTION OF WORKS:

- a. All the works shall be executed in strict conformity with the provisions of the contract documents and with such explanatory detailed drawings, specifications, and instructions as may be. The contractor shall be responsible for ensuring that works throughout are executed in the most substantial, proper and workman like manner with the quality of material and workmanship in strict accordance with the specifications following all safety requirements and to the entire satisfaction of the DAFFPL.
- b. Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities/materials, it is understood that the contractor shall do, so at his cost unless otherwise specified.
- c. The materials, design and workmanship shall satisfy the relevant Indian Standards, the Job specification contained herein and codes referred to. Where the job specification stipulate requirements in addition to those contained in the standards codes and specifications, these additional requirements shall also be satisfied.

2. MATERIALS TO BE SUPPLIED BY CONTRACTOR:

- a. The contractor shall procure and provide the whole of the materials required to complete the job including tools, tackles and equipment etc. The materials procured by the contractor shall be DAFFPL approved/specified quality.
- b. All materials procured/used should meet the specifications given in the tender document. The Engineer-in-Charge may, at his discretion, ask for samples and test certificates for any batch of any material. Before procuring, the contractor should get the approval of Engineer-in-Charge for any material to be used for the works.
- c. Manufacturer's certificate shall be submitted for all materials supplied by the contractor. If, however, in the opinion of the Engineer-in-Charge any tests are required to be conducted on the materials supplied by the contractor, these will be arranged by the contractor promptly at his own cost.

3. INSPECTION OF WORK:

- a. The Engineer-in-Charge will have full power and authority to inspect the works at any time wherever in progress either on the Site or at the contractor's premises / workshop where situated premises /workshops of any person, firm or corporation where work in



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connect with the contract may be in hand or where materials are being or are to be supplied, and the contractor shall afford or procure for the Engineer-in-Charge every facility and assistance to carry out such Inspection. The contractor shall at all time during the usual working hours and at all other time for which reasonable notice of the intention of the Engineer in-Charge or his representative to visit the works have been given to the contractor, either himself be present to receive order and instructions or post a responsible agent duly accredited in writing for the purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. The contractor shall give not less than seven days, notice in writing to the Engineer-in-Charge before covering up or placing any work beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of breach of above the same shall be uncovered at contractor's expense carrying out such measurement or inspection.

- b. No materials shall be dispatched by the contractor before obtaining the approval of Engineer-in-Charge in writing.

4. ASSISTANCE TO THE ENGINEERS:

The contractor shall make available to the Engineer-in-Charge, free of cost necessary instruments and assistance in checking of setting out of works/inspection.

5. TESTS FOR QUALITY OF WORKS:

- a. All workmanship shall be of the respective kinds described in the contract documents and in accordance with the instructions of the Engineer-in-Charge and shall be subjected from time to time to such test at contractor's cost as the Engineer-in-Charge may direct at place of manufacture or fabrication or on the site or at all or any such places. The contractor shall provide assistance, instruments, labour and materials as are normally required for examining, measuring and testing any workmanship as may be selected and required the Engineer-in-Charge.

6. ACTION AND COMPENSATION IN CASE OF BAD WORK:

If it shall appear to the Engineer-in-Charge that any work has been executed with unsound, imperfect or unskilled workmanship or with materials of any inferior description, or that any materials or articles provided by the contractor for the execution of the work are unsound or



of a quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in-Charge or his authorized representative, specifying the work, materials or articles complained of, notwithstanding that the same have been inadvertently passed, certified and paid for forthwith shall rectify or remove and reconstruct the works specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of failure to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, the contractor shall be liable to pay compensation at the rate of 0.5% of the estimated cost of the whole work, for every week limited to a maximum of 10% of the estimated cost of the whole work, while his failure to do so shall continue and in the case of any such failure the Engineer-in-Charge may on expiry of notice period rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expenses of the contractors in all respects. The decision of the Engineer-in-Charge as to any question arising under this clause shall be final and conclusive.

7. SUSPENSION OF WORKS:

The contractor shall, if ordered in writing by the Engineer-in-Charge or his representative, temporarily suspend the works or any part thereof for such period and such time as so ordered and shall not, after receiving such written order, proceed with the work therein ordered to be suspended, until he shall have received a written order to proceed therewith. The contractor shall not be entitled to claim/ compensation for any loss or damage sustained by him by reason of temporary suspension of the works aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid will be granted to the contractor, should he apply for the same, provided that suspension was not consequent to any default or failure on the part of the contractor.

8. OWNER MAY DO PART OF WORK:

Upon failure of the contractor to comply with any instructions given in accordance with the provisions of the contract, the owner has the alternative right, instead of assuming charge for entire work to place additional labour force, tools, equipments and materials on such parts of the work, as the owner may designate or also engage another contractor to carry out the work. In such cases, the owner shall deduct from the amount which otherwise might become due to the contractor, the cost of



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such work and materials with ten percent added to cover all departmental charges and should the total amount thereof exceed the amount due to the contractor, the contractor shall pay the difference to the owner.

9. PERIOD OF LIABILITY FROM THE DATE OF COMPLETION OF WORK:

- a. The contractor shall guarantee the materials/work for a period of 24 (Twenty Four) Months from the date of commissioning unless otherwise specified. Any damage that may lie undiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expense as deemed necessary by the Engineer-in-Charge or in default, the Engineer-in-Charge may cause the same made good by other workmen and deduct expenses (for which the certificate of Engineer-in-Charge shall be final) from any sums that may be then or at any time thereafter, become due to the contractor or from his security deposit.
- b. Effects prior to taking over: If at any time, before the work is taken over, the Engineer-in-Charge shall
 - Decide that any work done or materials used by the contractor or any sub-contractor is defective or not in accordance with the contract or that the works or any portion thereof are defective or do not fulfill the requirements of contract (all such matters being herein after called 'Defects' in this clause) and
 - As soon as reasonably practicable, notice given to the contractor in writing of the said decisions specifying particulars of the defects alleged to exist or to have occurred, then the contractor shall at his own expenses and with all speed make good the defects so specified. In the case contractor shall fail to do so, the Owner may take, at the cost of the contractor, such steps as may in all circumstances, be reasonable to make good such defects. The expenditure, so incurred by the Owner shall be recovered from the amount due to the contractor. The decision of the Engineer-in-Charge with regard to the amount be recovered from the contractor will be final and binding on the contractor. As soon as the works have been completed in accordance with the contract and have passed the tests on completion, the



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Engineer-in-Charge shall issue a certificate (hereinafter called completion certificate) in which he shall certify the date on which the work have been so completed and have passed the said tests and the Owner shall be deemed to have taken over the works on the date so certified. If the works have been divided into various groups in the contract, the Owner shall be entitled to take over any group or groups before the other or others and thereupon the Engineer-in-Charge shall issue a completion certificate which will however, be for such group or groups as taken over only.

- c. Defects after taking over: In order that the contractor could obtain a completion certificate, he shall make good with all possible speed, any defect arising from the defective materials supplied by the Contractor or workmanship or any act of omission of the contract that may have been noticed or developed after the works or group of the works has been taken over. The period allowed for carrying out such work will be normally one month. If any defect be not remedied within a reasonable time, the Owner may proceed to do the work at the contractor's risk and expense and deduct from the final bill such amount as may be decided by the Owner. If by reason of any default on the part of the contractor a completion certificate has not been issued in respect of every portion of the work within one month after the date fixed by the contract for the completion of the works, the Owner shall be at his liberty to use the works or any portion thereof in respect of which a completion certificate has been issued provided that the works or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completing these works for the issue of completion certificate.
- d. The Security Deposit/retention money deducted / furnished shall be retained for the period of liability as given in clause above. This Retention amount or Bank Guarantee furnished against Security Deposit/retention money shall be released only on expiry of the period of liability and also based on the certification of the Engineer-in-charge that no defect/damage has been reported / observed during the stipulated period of liability for the contract.



CHAPTER 5: SCOPE OF WORK

- a) Scope of supply includes design, fabrication, testing & commissioning of 02 Nos pit cleaning/QC vehicles for door delivery basis at DAFFPL Fuel Farm in New Delhi.
- b) The Pit Cleaning vehicle is Intended for following applications:
 - 1. Flushing from the low points of the fuel hydrant system.
 - 2. Venting of the high points of the fuel hydrant system.
 - 3. Emptying and cleaning the interiors of hydrant pit sump area.
 - 4. Sucking of clean ATF.
 - 5. Flushing of hydrant pits with help of hydrant dispenser.
 - 6. The vehicle should comply with IS 9290, EI-1560, JIG, EN-12312 (for further details), Petroleum Rules 2002 (and its latest amendment) of the Petroleum Act 1934 (Part IV: Transport on land by vehicles & Third schedule: Design and construction of tank vehicles for transporting petroleum in bulk), BS VI Norms of Delhi RTO.
 - 7. Compliant with latest and relevant PESO Guidelines.
- c) Procurement of chassis suitable for fabrication of required pit cleaning vehicles shall be in the scope of the fabricator. The Chassis should be with factory built-in-cabin and PTO meeting BS-VI certification. It should be from a reputed manufacturer like ASHOK LEYLAND /EICHER /TATA or equivalent. The model shall be equivalent or higher to AL 1615. However, the fabricator has to take final approval of DAFFPL before procuring the Chassis. The manufacturing date of chassis should preferably of the month in which LOI is issued. However, it shall not be older than three (03) months from date of issue of LOI/PO.
- d) The bidder/fabricator's scope of work includes design, fabrication, testing & commissioning of the complete equipment in line with specifications mentioned in Annexure-I (technical specifications) or anywhere else in tender documents.
- e) The fabricator is required to submit General Arrangement Drawing of the vehicle indicating the location of major components and estimated axle loadings, the flow circuit diagram indicating the location of all of the nominated control functions including those listed in this specification with their make and model, pneumatic & Brake interlock circuit.



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- f) All materials required for fabrication of vehicles shall be arranged and supplied by fabricator. The quantities mentioned in tender documents are indicative and if any quantity variation or any item that is not specified in the specifications but is considered essential for completing the fabrication, meeting the desired performance in all respects, shall be deemed to be in the scope of fabricator without any additional cost implication to DAFFPL.
- g) The expenses towards temporary registration/ road permit within India for delivery to referred destination also to be included in the quoted price.
- h) If Octroi, entry tax or any toll tax is applicable in India, enroute for delivery of completed equipment to DELHI, the same would be paid by the Supplier/Bidder which shall not be reimbursed by DAFFPL.
- i) Approvals shall be obtained in writing from the Petroleum & Explosives Safety Organization, Nagpur, Govt. of India, a statutory body, to build the -equipment in accordance with the requirements laid- down in the Third Schedule of The Petroleum Rules 2002. Necessary inspection by PESO officials at the premises of the fabricator to be completed after fabrication but before dispatch of the vehicles to DAFFPL location. All documents & drawings like copy of type approval, fabrication certificate, certificate of safety equipments/fittings with Make & Serial no. such as emergency vent, PV valve, Fusible link, etc. and Hydro-testing certificate of tank & Pipelines are to be submitted for each individual unit. The calculation of stability will have to be done by the fabricator and submitted for approval.
- j) INSPECTION & TESTING:
- 1) The equipments shall be subject to inspection and testing before dispatch by internationally reputed Third-Party Inspection agency like *SGS, Iteng Engineering, Lloyds Register of Shipping, Bureau Veritas*. The Vendor shall obtain prior approval from DAFFPL, before the appointment of Third-Party Inspecting Agency.
 - 2) The Third-Party Inspection agency will carry out various stage inspections for which all necessary arrangements will have to be made by the vendor including preparation of inspection schedule in discussion with the inspecting agency & subsequent co-ordination for carrying out the stage-wise inspections. The inspection charges will however be borne by



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the vendors. The rates quoted for the equipment/material shall be INCLUSIVE of inspection charges. The above inspection will be without prejudice to accepted Guarantee / Warranty. The scope of work for the third-party inspection agency is detailed in Technical Specifications (**Annexure-1**).

- k) The offer/quoted amount should also include all other elements like Custom Duties (if any), Insurance charges, approval charges, testing charges, third party inspection charges, transportation, and commissioning charges at site for door delivered price of equipment at DAFFPL Fuel Farm, New Delhi in India.

CHAPTER 6: GENERAL TERMS & CONDITIONS

1. General:

The materials and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein & codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied.

In the absence of any standard / specification / codes of practice for detailed specifications covering any part of the work covered in this tender document, the instruction / direction of consultant engineer will be binding on the contractor.

Wherever it is stated in this tender document that a particular supply is to be effected or that a particular work is to be carried out, it shall be understood that the same shall be effected / carried out by the contractor at his cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context.

2. DAFFPL reserves the right to accept any tender in whole and reject any or all tenders without assigning any reason. DAFFPL also reserves the right to allow public enterprises (Central/State) Price / purchase /contract / service preference as admissible under the Indian Government Policy.

3. BID PRICES:

- a) Prices shall be furnished strictly in the Price Bid format of the tender document.
- b) Bidder should quote their lowest and best offered price. Prices so quoted will remain firm till satisfactory completion of order. The price will not be subjected to escalation for any reason



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whatsoever.

- c) Bidders quoted prices shall be deemed to include entire Specification of item and all obligations and responsibilities to be carried out / executed by the Bidder as per terms of tender document. It is clearly understood by the Vendor that it is for the Vendor to ascertain and assess the applicable Acts/ Regulations/ Laws etc., entirely of their own. It is also for the Vendor to ascertain and assess the applicability of taxes, duties, levies etc. In case of any difference of opinion between Vendor's proposal and interpretation by any tax/assessing (or similar) authorities, on the rate or terms and conditions related to taxes and duties etc., owner's liability shall be strictly as per terms/provisions of the contract based on tender document and Vendors offer.
 - d) No other charges accept those mentioned in the tender document will be payable to vendor.
4. Materials are required to be dispatched by the vendor to the locations, on freight paid DOOR- DELIVERY CONSIGNEE COPY ATTACHED basis along with copies of Inspection release note & internal test certificates & other documents as mentioned elsewhere in this tender document.
 5. The supplier shall arrange for approvals like PESO (CCOE), Ministry of Transport, wherever required.
 6. Indian agent Commission will not be paid by the owner.

7. APPROVALS:

The following approvals shall be in the scope of the tenderer:

- a) Type approval in writing from the (PESO) Chief Controller of Explosives, Govt. of India, a statutory body, to build the equipment in accordance with requirements laid down in the Third Schedule of The Petroleum Rules 2002 and latest amendment rules.
- b) Approval for the tractor / trailer design from VJTI or IIT or any other Technical Agency acceptable to Transport Authority.
- c) Wherever axle loads/ overall dimensions of tractor trailers are not within the permissible limit recommended in central motor vehicle rules specifications, specific exemption shall



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be sought from Ministry of Surface Transport.

- d) Approval for Flow and pressure calculations confirming the flow rate of the /Pit cleaner/Hydrant Dispensers / Aircraft refuellers from VJTI or IIT or any other Technical Agency acceptable to DAFFPL.
 - e) Bidder shall quote considering the cost of all approvals, insurances and other applicable charges; nothing shall be paid/reimbursed additionally on any account.
8. Goods & Services Tax (GST): -The tenderer should have valid Goods & Service Tax registration. Tenderer should enclose the copy of the registration (GST) /copy of acknowledgement along with the tender. The Parties without valid Goods & Service Tax number need not quote. As per Section 171 of CGST/SGST Act, "Any reduction in rate of tax on any supply of goods or services or the benefit of input tax credit shall be passed on to the recipient by way of commensurate reduction in prices.
9. TAXES & DUTIES:
- a) Bidder(s) quoted prices shall be exclusive of all taxes, duties, cess, levies etc.,
 - b) The invoice should clearly mention that applicable Excise Duty, Education Cess or any other taxes charged and paid / payable on quoted item to enable the owner to claim MODVAT / Input credit.
 - c) The statutory variation in Excise duty, Education Cess and Sales tax / VAT/GST on finished goods and introduction of new tax, from bid due date till the contractual completion period shall be to owner account against submission of the documentary evidence. However, any increase in the rate of these taxes and duties beyond the contractual delivery period shall be to Seller account. Any decrease in the rate of these taxes and duties shall be passed on to the owner. Any additional excise duty due to increase in turn-over would be to seller account.
 - d) It is for the Bidder to assess and ascertain the rate of excise duty, education Cess and sales tax/VAT applicable on quoted items. It is clearly understood that Owner will not have any additional liability towards payment of Excise Duty, Education Cess, GST and Sales Tax/VAT which is based on Bidders wrong assessment / interpretation of applicability of such Excise Duty and/or education cess and / or Sales Tax/VAT.
 - e) Successful bidder shall carry out its obligations towards services at site as mentioned in technical specifications without any extra



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charges.

- f) Octroi/Entry tax, if any, in the any state of India shall be directly paid by the vendor, if applicable.
- g) DAFFPL shall not be liable, in case the tax authorities assess the tax elements in a different way on account of any reason, whatsoever.
- h) Taxes and duties other than those specified in this document, if any, shall be included in the quoted prices and no separate reimbursement shall be made by DAFFPL.

10. Income Tax / Corporate Tax:

- a) As regards Income Tax, Surcharge on Income Tax or any other Corporate Tax payable by the Bidder for reason of the contract awarded, and / or on their expatriate personal, the Owner shall not bear any Tax liability whatsoever, irrespective of the mode of construction of contract / order. The Bidder shall be liable and responsible for payment of such tax, if attracted under the provision of Indian Income Tax Act.
- b) Bidder may note that if any tax is deductible at source as per Indian Income Tax Law, the same will be so deducted before releasing any payment to the Bidder and a TDS (Tax deducted at source) certificate will be furnished to the Bidder.
- c) Accordingly, Bidder shall have the responsibility to check and include such provision of taxes in the prices.
- d) In case of delay in delivery due to reasons attributable to Bidder, any new or additional taxes or duties levied by Statutory authorities during this period shall be borne by the Bidder.

11. EMD / BID SECURITY

- a) The bidder shall furnish, as part of his bid, a bid security in original for the amount specified in the tender document by way of pay order, bank guarantee on Rs.100/-value non-judicial stamp paper or demand draft.
- b) The bid security is required to protect the Owner against the risk of Bidders conduct, which would warrant the security forfeiture.
- c) If bid Security / EMD is in the form of bank guarantee, it shall be in the form of irrevocable bank guarantee (in the format attached) issued by any Indian Scheduled Bank (other than Co-operative Bank) will be accepted.
- d) Bid Security / EMD shall be issued in favour of M/s Delhi Aviation Fuel Facility (P) Limited, New Delhi.
- e) Unsuccessful bidders bid security without any interest will be discharged/ returned as promptly as possible, but not later than 60



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days after the expiry of the period of bid validity prescribed by the Owner.

- f) The successful bidder bid security without any interest will be discharged, upon the Bidder accepting the Contract/ Purchase Order and furnishing the Contract performance bank guarantee to DAFFPL.
- g) The bid security may be forfeited:
 - i. If a bidder withdraws his bid during the period of bid validity or
 - ii. In the case of a successful bidder, if the bidder fails or refuses to:
 - Accept the Purchase Order in accordance with agreed terms and conditions.
 - Furnish Contract performance bank guarantee as per bid document/ Purchase Order.
 - iii. Detection of submission of false / forged documents and fraud.
- h) Central Public Sector Undertaking of Govt. Of India are exempted from furnishing the bid security. Firms registered with NSIC/ MSME are also exempted from furnishing bid security, provided they are registered for the tendered items and up to the monetary limit they intend to quote. Provided further that they submit a copy of the current and valid registration certificate for the quoted item and monetary value along with their bid(s). Owner reserves right to verify the registration certificate provided, with relevant authorities.

12. CONTRACT PERFORMANCE BANK GUARANTEE [CPBG]

- a) As a Performance security, the successful Bidder, to whom the work is awarded by, shall be required to furnish within 30 days of notification of award of contract (Letter/ Fax/e-mail of Intent) a Performance Bank Guarantee on RS.100/- VALUE non-judicial stamp paper in favour of the Owner (M/S DAFFPL).
- b) The Bank Guarantee amount shall be equal to TEN PERCENT (10%) of the Total Order Value, and it shall guarantee the faithful performance of the Order in accordance with the Terms and conditions specified in the documents and specifications.
- c) CPBG shall be in the form of an irrevocable Bank Guarantee (in the format attached) issued by any Indian Scheduled Bank (other than Co-operative Bank).
- d) The Bank Guarantee shall be valid for the entire period of the Contract, namely, till the end of the guarantee / warranty period.



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The guarantee amount shall be payable on demand to the Owner.

- e) In case, the Contract Performance Bank Guarantee stated above gets reduced/ deducted for reasons of non-fulfillment of any Contractual obligations upto the completion of guarantee period, the bidder shall immediately take action to increase the value of Bank Guarantee to TEN PERCENT (10%) of the Contract price, to cover his guarantee/warranty obligations.
- f) The Performance Guarantee will be returned to the bidder without any interest at the end of the warranty / guarantee period subject to fulfillment of all contractual obligations by the Bidder. The bank guarantee shall have a claim period of 3 months beyond the contractual guarantee period.
- g) The proceeds of performance security shall be appropriated by the owner as compensation for any loss resulting from vendor's failure to complete his obligations under the contract to the prejudice to any of the rights or remedies the owner may be entitled to as per terms and conditions of contract. The proceeds of this performance security shall also govern the successful performance of goods and services and vendors all obligations during the entire period of contractual warrantee / guarantee.

13. PRICE REDUCTION FOR DELAY IN DELIVERY:

- a) The completion period quoted must be realistic & specific. The inability of successful bidder to execute orders in accordance with the agreed completion schedule will entitle DAFFPL, at its options, to:
 - b) Accept delayed delivery at prices reduced by a sum equivalent to half percent (0.5%) of the total value of complete vehicle not delivered for every week of delay or part thereof which is to be considered as a week, limited to a maximum of 10% of the total value of complete vehicle. Date of delivery of pit cleaning vehicles at DAFFPL site shall be considered for calculation of price reduction.
 - c) The price reduction clause shall become applicable for delivery of vehicles beyond the schedule delivery period.
 - d) The price reduction will be applicable on ready vehicle which will be delivered after due date and total cost of vehicle including chassis cost which is delivered after due date shall be considered for application of this clause.

14. Early Delivery: DAFFPL shall appreciate early delivery of the completed Pit Cleaning Vehicles.



15.INSURANCE

Supplier shall carry and maintain any and all statutory insurance(s) required under Indian Laws and Regulations, including Workmen compensation Act/ESI/Third party liabilities etc. and insurances for their personnel engaged in performance of the work at their own cost.

The complete unit including chassis is to be fully insured by the Fabricator against loss, damage, and third party risks whilst it is in the Fabricator's premises and till delivery to final destination.

TRANSIT & COMPREHENSIVE INSURANCE

The vendor shall arrange transit Insurance for door delivery of equipments to DAFFPL Fuel Farm, New Delhi for delivery.

Tenderers are requested to take the comprehensive insurance including the Chassis and Fabrication part of the pit cleaning vehicles valid for minimum 1 year from the delivery at the DAFFPL, New Delhi location.

16.INSPECTION:

- a) Material / construction/Fabrication shall be inspected by owner or its representative. Charges other than third party inspection, is entirely vendor responsibility and in no way should affect the completion schedule.
- b) OWNER may, at its own expense, witness any test or inspection. In order to enable OWNER to witness the tests/inspections OWNER will advise the bidder in advance whether it intends to be present at any of the inspections.
- c) Even if the inspection and tests are fully carried out, the Vendor shall not be absolved from its responsibilities to ensure that the Material(s), raw materials, components and other inputs are supplied strictly to conform and comply with all the requirements of the Contract at all stages, whether during manufacture and fabrication, or at the time of Delivery as on arrival at site and after its commissioning or start up and during the defect liability period. The inspections and tests are merely intended to prima-facie satisfy OWNER that the Material(s) and the parts and components comply with the requirements of the Contract. The Vendor s responsibility shall also not be anywise reduced or discharged because OWNER or OWNER s representative(s) or Inspector(s) shall have examined, commented on the Vendor s drawings or specifications or shall have witnessed the tests or required any chemical or physical or



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other tests or shall have stamped or approved or certified any Material(s).

- d) Although material approved by the Inspector(s), if on testing and inspection after receipt of the Material(s) at the location, any Material(s) are found not to be in strict conformity with the contractual requirements or specifications, OWNER shall have the right to reject the same and hold the Vendor liable for non-performance of the Contract.

17. GUARANTEE/WARRANTY:

- a) Materials shall be guaranteed against manufacturing defects, materials, workmanship and design for a period of 24 months from the date of commissioning. Warranty for replacement of material / accessories should be provided free of charges at our premises. The above guarantee/warranty will be without prejudice to the certificate of inspection or material receipt note issued by us in respect of the materials.
- b) All the materials including components and subcontracted items should be guaranteed by the vendor within the warranty period mentioned above. In the event of any defect in the material, the vendor will replace / repair the material at DAFFPL concerned location at vendor risk and cost on due notice.
- c) Alternatively, DAFFPL reserves the right to have the material repaired / replaced at the locations concerned, at the vendors risk, cost and responsibility, in case, vendor does not replace / repair the material.
- d) The Vendor shall provide similar warrantee on the parts, components, fittings, accessories etc. so repaired and / or replaced.
- e) Vendor shall guarantee that the performance of the EQUIPMENT supplied under the CONTRACT shall be strictly in conformity with the specifications and shall perform the duties specified under the CONTRACT.
- f) **RISK PURCHASE CLAUSE:** We reserve the right to curtail or cancel the order either in full or part thereof if bidder fails to comply with delivery schedule and other terms & conditions of the order. DAFFPL also reserves the right to procure same or similar materials/equipment through other sources at vendor's entire risk, cost and consequences.

18. AFTER SALES SERVICES:

Vendor should assume complete responsibility of satisfactory performance of the pit cleaning vehicle and material used and the after sales service. During the period of warranty, the vendor shall provide free maintenance



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and service backup. All the complaints shall be attended to immediately within 48 hrs of reporting of a complaint.

19. TEST & PERFORMANCE CERTIFICATES: Bidder shall furnish Material test and Performance Certificates for the materials along with the challans and invoice.

20. PAYMENT TERMS: The payment will be made after making necessary deductions as applicable & stipulated elsewhere in the tender document for materials, security deposit or any moneys due to the Owner etc.

Advance Payment is not permissible in this contract.

Submission of PBG equal to 10% of Total Order Value within 30 days of issue of LOI/PO is compulsory.

Chassis: 100% payment towards the cost of chassis shall be released by DAFFPL on production of satisfactory TPI report on receipt of chassis at fabricators premises. The chassis shall be in the name of DELHI AVIATION FUEL FACILITY PRIVATE LIMITED. The original tax invoice of the chassis shall be submitted for release of payment.

Fabrication Works: The balance amount with respect to Fabrication shall be released against proof of receipted delivery challan within 30 days from the date of receipt of vehicle at site. The following documents are to be submitted by the Vendor for releasing payment for the Equipments.

1. Invoice in triplicate.
2. Receipted Delivery Challan.
3. Guarantee / Warranty Certificate
4. Certificate of country of origin
5. Performance Test Certificate duly cleared for acceptance by Third Party Inspecting agency.
6. Proof of payment of customs duty if applicable.
7. Literature / Operation and Maintenance Manuals – 3 sets.

Arrangement for Transit e-way Bill under the GST Act for all the purchases is the responsibility of the tenderer.

21. Only in the event of causes of Force Majeure occurring within the contractual delivery period and if they impede the performance of



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- contract, the delivery dates shall be extended on receipt of application from the bidder / Owner without imposition of penalty. Only those causes which depend on natural calamities, civil wars, fire and national strikes which have duration of more than seven consecutive calendar days are considered the causes of force Majeure. The decision of Owner shall be final and binding on vendor.
22. The Vendor must advise the Owner by a registered letter duly certified by Local Chamber of Commerce or statutory authorities and Owner must advise the Vendor by a letter, the beginning and the end of the delay immediately, but in no case later than within 10 days of the beginning and end of such causes of Force Majeure condition as defined above. Provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event for period exceeding 60 days either party may at its option terminate the contract.
23. Repeat Order: DAFFPL reserves the right to place repeat order up to the order quantity within SIX MONTHS from the date of original order on mutual agreement basis.
24. Any reference to the Govt. Acts /Regulations etc. in the Bid Document is only indicative, and it is entirely for the bidder to ascertain the applicable Acts/Regulations.
25. RECOVERY OF SUMS DUE: Whenever, any claim against bidder for payment of a sum of money arises out of or under the contract or in any other form, the owner shall be entitled to recover such sums from any sum then due or when at any time thereafter may become due from the vendor under this or any other form and should this sum be not sufficient to cover the recoverable amount of claim(s), the vendor shall pay to DAFFPL on demand the balance remaining due.
26. PATENTS & ROYALTIES: The vendor shall fully indemnify owner and users of materials specified herein/supplied at all times, against any action, claim or demand, costs and expenses, arising from or incurred by reasons of any infringement or alleged infringement of any patent, registered design, trademark or name, copy right or any other protected rights in respect of any materials supplied or any arrangement, system or method of using, fixing or working used by the vendor. In the event of any claim or demand being made or action sought against Owner in respect of any of the



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aforesaid matter, the vendor shall be notified thereof immediately and the vendor shall at his/its own expense with (if necessary) the assistance of Owner (whose all expense shall be reimbursed by the vendor) conduct all negotiations for the settlement of the same and/or litigation which may arise thereof.

27. **LIABILITY CLAUSE:** In case where it is necessary for employees or representatives of the Vendor to go upon the premises of owner, vendor agrees to assume the responsibility for the proper conduct of such employees/representatives while on said premises and to comply with all applicable Workmen s Compensation Law and other applicable Government Regulations and Ordinances and all plant rules and regulations particularly in regard to safety precautions and fire hazards. If this order requires vendor to furnish labour at site, such vendors workmen or employees shall under NO circumstances be deemed to be in owner s employment and vendor shall hold himself responsible for any claim or claims which they or their heirs, dependent or personal representatives, may have or make, for damages or compensation for anything done or committed to be done, in the course of carrying out the work covered by the purchase order, whether arising at owner s premises or elsewhere and agrees to indemnify the owner against any such claims, if made against the owner and all costs of proceedings, suit or actions which owner may incur or sustain in respect of the same.
28. **COMPLIANCE OF REGULATIONS:** Vendor warrants that all goods/Materials covered by this order have been produced, sold, dispatched, delivered and furnished in strict compliance with all applicable laws, regulations, labour agreement, working condition and technical codes and statutory requirements as applicable from time to time. The vendor shall ensure compliance with the above and shall indemnify owner against any actions, damages, costs and expenses of any failure to comply as aforesaid.
29. **REJECTION, REMOVAL OF REJECTED GOODS AND REPLACEMENT:** In case the testing and inspection at any stage by inspectors reveal that the equipment, materials and workmanship do not comply with specification and requirements, the same shall be removed by the vendor at his/its own expense and risk, within the time allowed by the owner/purchaser. The Purchaser shall be at liberty to dispose off such rejected goods in such manner as he may think appropriate, in the event the vendor fails to remove the rejected goods within the period as aforesaid. All expenses incurred by the Purchaser for such disposal shall be to the account of the



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vendor. The freight paid by the purchaser, if any, on the inward journey of the rejected materials shall be reimbursed by the vendor to the purchaser before the rejected materials are removed by the vendor. The vendor will have to proceed with the replacement of the Equipments without claiming any extra payment if so required by the purchaser. The time taken for replacement in such event will not be added to the contractual delivery period.

30. NON-WAIVER : Failure of the Owner to insist upon any of the terms or conditions incorporated in the Purchase Order or failure or delay to exercise any rights or remedies herein, or by law or failure to properly notify Vendor in the event of breach, or the acceptance of or payment of any goods hereunder or approval of design shall not release the Vendor and shall not be deemed a waiver of any right of the Owner to insist upon the strict performance thereof or of any of its or their rights or remedies as to any such goods regardless of when such goods are shipped, received or accepted nor shall any purported oral modification or revision of the order by DAFFPL act as waiver of the terms hereof. Any waiver to be effective must be in writing. Any lone incident of waiver of the any condition of this agreement by DAFFPL shall not be considered as a continuous waiver or waiver for other condition by DAFFPL.

31. NEW & UNUSED MATERIAL: All the material supplied/used by the vendor shall be branded new, unused and of recent manufacture.

32. CANCELLATION:

- a) DAFFPL reserves the right to cancel the contract/purchase order or any part thereof through a written notice to the vendor if –
 - i. The vendor fails to comply with the terms of this purchase order/contract.
 - ii. The vendor becomes bankrupt or goes into liquidation.
 - iii. The vendor fails to deliver the goods on time and/or replace the rejected goods promptly.
 - iv. The vendor makes a general assignment for the benefit of creditors.
 - v. A receiver is appointed for any of the property owned by the vendor.
 - vi. Any other conditions where owners commercial interest get affected.
- b) Upon receipt of the said cancellation notice, the vendor shall discontinue all work on the purchase order matters connected with it.



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DAFFPL in that event will be entitled to procure the requirement in the open market and recover excess payment over the vendor's agreed price if any, from the vendor and also reserving to itself the right to forfeit the security deposit if any, made by the vendor against the contract. The vendor is aware that the said goods are required by DAFFPL for the ultimate purpose of materials production and that non-delivery may cause loss of production and consequently loss of profit to the DAFFPL. In this event of DAFFPL exercising the option to claim damages for non-delivery other than by way of difference between the market price and the contract price, the vendor shall pay to DAFFPL, fair compensation to be agreed upon between DAFFPL and the vendor. The provision of this clause shall not prejudice the right of DAFFPL from invoking the provisions of price reduction clause mentioned aforesaid.

33. **ANTI –COMPETITIVE AGREEMENTS/ABUSE OF DOMINANT POSITION:** The Competition Act, 2002 as amended by the Competition (Amendment) Act, 2007 (the Act), prohibits anti-competitive laws and aims at fostering competition and at protecting Indian markets against anti-competitive practices by enterprises. The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises, and regulates combinations (consisting of acquisition, acquiring of control and M&A) wherever such agreements, abuse or combination causes, or is likely to cause, appreciable adverse effect on competition in markets in India. DAFFPL reserves the right to approach the Competition Commission established under the Act of Parliament and file information relating to anti-competitive agreements and abuse of dominant position. If such a situation arises, then Vendors are bound by the decision of the Competitive Commission and also subject to penalty and other provisions of the Competition Act.
34. **ASSIGNMENT:** The Vendor can / does not have any right to assign his rights and obligations under these general purchase conditions without the prior written approval of DAFFPL.
35. **GOVERNING LAW:** These General Purchase Conditions shall be governed by the Laws of India.
36. **AMENDMENT:** Any amendment to these General Purchase Conditions can be made only in writing and with the mutual consent of the parties to these conditions.



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37. The following expressions used in these terms and conditions and in the purchase order shall have the meaning indicated against each of these:

- a) **OWNER**, Client, Purchaser, buyer means DAFFPL
- b) **VENDOR**, tenderer, Bidder, Contractor, Seller, Supplier, manufacturer stated anywhere in the tender document carry the same meaning: It means the person, firm or the Company / Corporation to bidding and shall include its successors and assigns.
- c) **INSPECTOR/ TPIA**: Person/agency deputed by Owner for carrying out inspection, checking/testing of items ordered and for certifying the items conforming to the purchase order specifications.
- d) **GOODS / MATERIALS**: means any of the articles, materials, machinery, equipment's, supplies, drawing, data and other property and all services including but not limited to design, delivery, installation, inspection, testing and commissioning specified or required to complete the order.
- e) **SITE / LOCATION**: means any Site where DAFFPL desires to receive materials anywhere in India as mentioned in tender.
- f) **CONTRACT**, Order or Purchase Order/CALL-OFF means the agreement for supply of goods/ materials for required quantity between Owner and Vendor, for a fixed time on mutually agreed terms and conditions.
- g) The term MR means Material Requisition containing technical requirements and scope of work (technical), GPC means General Purchase Conditions containing commercial terms & conditions, PO means Purchase order issued after award of contract incorporating agreed deviations in MR, ATC means Agreed Terms & Conditions , RFQ means Request For Quotation.
- h) For the purpose of contract, the trade terms FOB, CFR and CIF, DAP shall have the meanings as assigned to them by INCOTERMS 2010 published by ICC, Paris.

38. REFERENCE FOR DOCUMENTATION:

The number and date of Collective Request for Quotation (CRFQ) must appear on all correspondence before finalization of Contract / Purchase Order.

After finalization of Contract / Purchase Order: The number and date of Contract /Purchase Order must appear on all correspondence, drawings, invoices, dispatch advice, (including shipping documents if applicable) packing list and on any documents or papers connected with this order.



39. ARBITRATION

- a) Any 'dispute or difference of any nature whatsoever, any claim, cross-claim, counterclaim or set off of the Owner against the Consultant or regarding any right, liability, act, omission or account of any of the parties hereto arising out of or in relation to this agreement shall be referred to the Sole Arbitration of the nominated Director of the Owner or of some Officer of the Owner who may be nominated by the nominated Director. The consultant will not be entitled to raise any objection to any such arbitrator on the ground that the arbitrator is an officer of the Owner or that he has dealt with the matters to which the contract relates or that in the course of his duties as an Officer of the Owner, he had expressed view on all or any other matters in dispute or difference. In the event of the arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, the nominated Director as aforesaid at the time of such transfer, vacation of office or inability to act may in the discretion of the nominated Director designate another person to act as arbitrator in accordance with the terms of the agreement to the end and intent that the original Arbitrator shall be entitled to continue the arbitration proceedings notwithstanding his transfer or vacation of office as an officer of the Owner if the nominated Director does not designate another person to act as arbitrator on such transfer, vacation of office or inability of original arbitrator. Such person shall be entitled to proceed with the reference from the point at which it was left by his predecessor. It is also a term of this contract that no person other than the nominated Director of the Owner or a person nominated by such nominated Director as aforesaid shall act as arbitrator hereunder. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to the agreement subject to the provisions of the Arbitration & Conciliation Act, 1996 or any statutory modification or reenactment thereof and the rules made there under for the time being in force shall apply to the arbitration proceedings under this clause.
- b) The arbitrator shall have power to order and direct either of the parties to abide by, observe and perform all such directions as the arbitrator may think fit having regard to the matters in difference i.e. dispute, before him. The arbitrator shall have all summary powers and may take such evidence oral and/or documentary, as the arbitrator in his absolute discretion thinks fit and shall be entitled to exercise all powers under the Indian Arbitration & Conciliation Act



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1996 including admission of any affidavit as evidence concerning the matter in difference i.e. dispute before him.

- c) The parties against whom the arbitration proceedings have been initiated, that is to say, the Respondents in the proceeding, shall be entitled to prefer a cross claim, counter claim or set off before the Arbitrator in respect of any matter in issue arising out of or in relation to the Agreement without seeking a formal reference of arbitration to the nominated Director/officer for such counter-claim, or set off and the Arbitrator shall be entitled to consider and deal with the same as if the matters arising therefore has been referred to him originally and deemed to form part of the reference made by the nominated Director/officer.
- d) The arbitrator shall be at liberty to appoint, if necessary any accountant or engineering or other technical person to assist him, and to act by the opinion so taken.
- e) The arbitrator shall have power to make one or more awards whether interim or otherwise in respect of the dispute and difference and in particular will be entitled to make separate awards in respect of claims of cross claims of the parties.
- f) The arbitrator shall be entitled to direct any one of parties to pay the costs to the other party in such manner and to such extent as the arbitrator may in his discretion determine and shall also be entitled to require one or both the parties to deposit funds in such proportion to meet the arbitrators expenses whenever called upon to do so.
- g) The parties hereby agree that the courts in the city of Delhi alone shall have jurisdiction to entertain any application or other proceedings in respect of anything arising under this agreement and any award or awards made by the Sole Arbitration hereunder shall be filed (if so required) in the concerned courts in the city of Delhi only.



ANNEXURE-I

TECHNICAL SPECIFICATIONS

1.0 INTRODUCTION:

1.1 The Pit Cleaning vehicle is Intended for following applications: -

- ❖ Flushing from the low points of the fuel hydrant system.
- ❖ Venting of the high points of the fuel hydrant system.
- ❖ Emptying and cleaning the interiors of hydrant pit sump area.
- ❖ Sucking of clean ATF.

1.2 KEY TECHNICAL REQUIREMENTS

1.2.1 The pressure tank shall be designed and fabricated as per IS 2825 and SMPV rules of PESO and normal tank will be as per IS5986. The constructional features, shapes and their details of 2 KL and 6 KL shall be designed to fit on a LCV of Tata or Leyland chassis.

1.2.2 2KL Tank shall be pressure vessel and subject to internal vacuum and pressures.

Product tank specifications:-

S.No.	Particulars	Details	Remarks
a)	Product capacity	:6KL and 2 KL	
b)	Manholes per tank	:1 no.at dished end:	:in 2KL tank and 1 no. at top (Loading hatch- EMCO Type having PV valve) for each 3 KL or above sized compartment(s) in 6KL tank.
c)	Operating pressure	:50 psi (Pressure tank)	
d)	Operating vacuum	:500-600mm of Mercury Column (i.e. 12psi).(pressure tank)	

1.2.3 (a) 6KL tank will have opening for the following besides above manholes:-

S.No.	Details	Number	Remarks
a)	Inlet pipelines	ATF 1 no	(50mm) bottom entry through jet sensor interlock low point flushed product by hydrant pressure and 1 No (25mm) top entry for sucking clean ATF by air diaphragm pump. Bottom entry line should have two reel for collecting



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product from two types of low points.
The details given later.

- | | | | |
|----|---|--------|---|
| b) | Float assembly (flange connection) | 1 no. | |
| c) | Outlet line (75mm) | 2 nos. | |
| d) | Liquid level indicator (magnet type) | 1 no. | |
| e) | Compound pressure gauge | 1 no. | |
| f) | Jet sensor and pneumatic operated shut off valve for 6KL tank | | size 3" pneumatic , Float based shut – off for top entry line. |

(b) 2KL tank will have opening for the following besides above manholes:-

S.No.	Details	Number
a)	Inlet ATF pipelines	: 1 no
b)	Float assembly (flange connection)	: 1 no.
c)	Outlet line (75mm)	: 2 nos.
d)	Liquid level indicator (magnet type)	: 1 no.
e)	Compound pressure gauge	: 1 no.
f)	Float based shut –off for top entry line	:
g)	Safety Relief Valve	:

1.2.4 Both the tanks will be fabricated of carbon steel material stress relieving of the welds required as per the code will be carried out. Tanks will be structurally strong and designed to carry the rated capacity of water on moving chassis to withstand all stresses generated by swaying thermal expansion sudden braking.

Supports for tanks shall be designed and provided as per IS 2825 and SMPV rules. Adequate stiffeners shall be provided to prevent buckling. Tanks shall be installed on chassis members using "U" bolt with rubber padding. No welding will be carried out on the chassis members.

1.2.5 **Manholes** with suitable neck shall be provided at approved location on the tanks. Manholes covers will be bolted using neoprene or Buna N or Nitrile gasket and high tensile bolts and shall have holding arrangement.

1.2.6 **Magnetic Level indicator** of approved make & design will be provided on each of the two tanks for measuring the level of liquid in the tank. The specifications of the indicator are:-

S.No.	Particulars	Remarks
a)	Length of indicator	: full dia of the tank/height
b)	Material of tube, flanges	: stainless steel 304
c)	Display Colour	: Bright colour red or blue
d)	Inlet Outlet flange	: 50 mm



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- e) Least count of indicator : 10 mm (min.)
- f) Reed switch (Explosion proof) : to cover full range for hi, hi-hi
- g) Alarms : explosion proof, Visual and audio alarms (installed on Control panel)
- h) SS Drain Cock

All the electric fittings of indicator shall be explosion proof and suitable for operating on 12/24 volts depending of model of chassis selected.

1.2.7. All the openings above 2 ½" and above will be suitably reinforced and the **reinforcing pad** will have telltale holes for pressure testing to be plugged later.

1.2.8. Bidder must submit general arrangement drawing of vehicle giving all details along with-loading calculation, stability calculations with 'Techno-Commercial Bid'.

1.2.9. Following document will be submitted after issue of LOI:-

- a) Detailed Bar Chart
- b) Quality Assurance Plan
- c) Detailed design calculations for tanks with supports, manholes etc. Duly approved by the approved third party like EIL, Lloyds, IRIS, DNV.
- d) Detailed fabrication drawing for each vehicle
- e) P&ID for each vehicle.
- f) General arrangement drawing with all details.

1.2.10. Vendor shall arrange to obtain PESO approval as applicable for design of the vehicles and on behalf of DAFFPL, immediately after receipt of LOI and shall ensure that vehicles are fabricated strictly as per PESO approval and also carry out competent third party inspection as per petroleum rules 2002 and coordinate to get final clearance from PESO as per drawing.

1.3 **SAMPLING & PIT CLEANING EQUIPMENT**

1.3.1 Each sampling vehicle will be provided with following equipment:-

S.No.	Details	Number
a)	Pressure vacuum pump (minimum 3600litres /min free air)	1 no.
b)	All filter, 10 micron capacity suitable for above pump	1 no.
c)	Air tank, 40 litres capacity with loading nipple (panel Mounted), unloader valve, drain cock, isolating valves	1 no.
d)	2" Audco IN 123 valve	Vendor to provide the quantity as per their drawing scheme and accepted by DAFFPL or its authorised representative
e)	3" Audco ball valve	Qty to be provided by vendor



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f)	2" Audco valve	Qty to be provided by vendor
g)	1" Audco IN 123 valve	Qty to be provided by vendor
h)	1" SS ball valve	Qty to be provided by vendor
i)	1" SS non return valve	1 no.
j)	2" aircraft delivery nozzle without HEPCV	Qty to be provided by vendor
k)	Compound pressure gauge	Qty to be provided by vendor
l)	Pressure gauge 0 to 150 psi	Qty to be provided by vendor
m)	Vacuum gauge	1 no.
n)	Hose reel suitable for 1inch x 30 ftavn hose	2 no.s
o)	Hose reel suitable for 1.5inch x 30 ft avn hose	1 no.
p)	Hose reel suitable for 2inch x 30ft long hose	2 no.s
q)	Housing for spout & trigger nozzle, delivery coupling	4 no.s
r)	Following hoses will be supplied and installed:	
(i)	2" x 30' long aviation hose (for decanting clean ATF)	1 no.
(ii)	1.5" x 15' long rubber hose with min life of 10 years (for sucking dirty product and for throwing out the same)	1 no.
(iii)	1"x 30' long hose suitable for ATF (for flushing hydrant line product)	1 no.
(iv)	1.5" x 30' long hose suitable for ATF (for flushing hydrant line product)	1 no.
(v)	1" x 15 ft suitable for ATF (for sucking clean product using diaphragm based pump)	1 no.
s)	Vacuum valves on the pipeline to protect the equipment	1 no.
t)	1" female SS quick acting coupler (Dry disconnect type)-(vendor may check with existing male fitting for low point available in hydrant line.)	1 no.
u)	1.5" female SS dry disconnect suitable for ANMY-4960 Make WHITTAKER CONTROL INC (MEGGIT)	1 no.
v)	4 litres cap closed circuit sampler (Aljac / Fluid Transfer make)	1 no.
w)	Semi rotary hand pump	1 no.
x)	Diaphragm based pneumatic pump to suck clean ATF in to bigger (6KL) tank,	1 no.
y)	Three lug adaptor with isolation valve in common loading line to be provided for 6KL Tank	1no.

1.3.2. The details of two types of pumps are given below:



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1.3.2.1 The pressure vacuum pump will be procured and installed as per following specifications:-

- ❖ Pressure developed for continuous service 60 psi minimum.
- ❖ Free air displacement : At least 3600litres. /min.
With 500-60 mm HG vacuum and pressure of 0.5 Kg/sq. Cm
- ❖ Direction of rotation: to suit the pump and PTO

The pump will be mounted as mentioned below:-

Pressure /vacuum pump will be connected to the PTO of the vehicle gear-box with propeller –shaft, universal joints or through reliable belt drive centrelines of pressure/vacuum pump shaft and PTO shaft will be aligned almost in the straight line to avoid fluctuation in power. The whole assembly shall be dynamically balanced prior to installation. This should be carried out from an approved lab/agency.

An operating lever for PTO will be provided in the driver's cab at an approved location, a suitable RPM meter will also be provided.

Pump will be mounted on suitable MS channel frame which will be suitably supported on chassis to minimise stress on chassis and reduce vibrations.

Pump inlet will be fitted with a filter. The exhaust of the pump will be located at the approved location away from engine exhaust and fitted with a suitable flame arrestor of approved make.

1.3.2.2 The diaphragm based pneumatic actuating pump is required to suck ATF from clean space to the bigger capacity tank (6KL). The detailed requirement is given below:

- | | |
|-----------------------------------|------------------------------|
| a) Maximum fluid working pressure | : 100psi. |
| b) Minimum suction lift | : 15ft |
| c) Minimum flow delivery of ATF | : 30-40lpm |
| d) Air operating pressure range | : 75 to 100psi |
| e) ATF inlet /outlet size | : 3/4 inch to 1 inch. |
| f) Wetted parts | : preferably stainless Steel |

1.3.3 One no additional **air tank** of 40 to 50 lit. Capacity(minimum) will be supplied and fitted. The tank shall have standard fitments like drain cock, loading nipple unloader valve (Sundaram Clayton make) set @100psi. The pneumatic pressure line from air tank to ATF tanks shall be copper and laid along the surface of the tank. Suitable clamps shall be provided for copper line. The tank is to be used for operating brake interlocks, diaphragm based pneumatic pump and pneumatic circuit used for aviation module.

1.3.4 The **valves** mentioned above shall be installed. All the valves will be Audco make.
Only Buna N/ Viton A gaskets will be used for ATF and pneumatic pipeline/flanges/manholes.

1.3.5 The **ATF pipelines** will be Seamless SS 304 of schedule 10.all the pipe fittings elbows, tees &flanges will be rated to 150psi.

1.3.6 **Pneumatic line** from the vacuum pump will be of carbon steel schedule 40. The pipeline shall have **vacuum valves** for protecting the equipment; both ATF tanks will have 1 no. SS **float assembly** to avoid over filling of tanks and ingress of liquid into the vacuum pump. A suitable manual venting



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arrangement will be provided on the vacuum line. The bigger tank should have also a bottom loading shut-off valve with Jet Sensor.

The tanks, pipelines, fittings and control panel will be laid out in sample and neat manner on the chassis.

- 1.3.7 A **platform** made of aluminium chequered plate will be provided on both sides of the tank and also connecting both tanks. The aluminium plates should be removable type for repainting. For safety railing should be provided on the edge of the platform.

One no. anti-skid type aluminium ladders of approved design , will be provided to climb on the chassis platform **to approach tank top surface.**

- 1.3.8 Suitable MS brackets with canvas lining will be fitted at different locations for stowing the hoses. **MS housings** with clamps will be provided suitable for 1 no 2-1/2" delivery coupling 1 no. trigger nozzle, 2 Nos. SS quick acting coupler.

- 1.3.9 Hose reels for hose with electric motor driven hose rewind mechanism shall be supplied. The swivel joint shall be tested for pressure of minimum 150 psi. Each reel will be fitted with suitable **aviation hose** manufactured as per API1581 Grade 2, Type C/ EN1361.

- 1.3.10 Aluminium pipe (3.5m long) will be supplied loose for connecting to the 1.5" aviation hose . This pipe will be used for sucking liquid from hydrant pits secondary and primary for old type and main pit of new double chamber type as well as product from similar depth points. Hence suitable threaded connection will be provided for connections. At the inlet a suitable **SS stone guard strainer** of an approved design will be provided.

- 1.3.11 1no, 2" aircraft underwing nozzle of carter make fitted with dust cap, bonding wire/clip will be provided and connected to 2" aviation hose.

- 1.3.12 A 4 litres cap **closed circuit sampler** of Aljac/fluid transfer make will be installed on tank inlet line for taking samples. The sampler will have a drain cock and facility for temp. And density measurement.

- 1.3.13 One no. 1" **SS quick acting coupler (female)** will be supplied and fitted with 1" hose and one no female dry disconnect SS compatible with ANMY-4960 Make WHITTAKER CONTROL INC (MEGGIT) will be supplied with 1.5inch hose for each vehicle.

1.4. SAFETY AND OPERATIONAL FITMENTS

- 1.4.1 The sampling/pit cleaning vehicle will be handling petroleum product (aviation turbine fuel-Jet A1 class B product) and hence should comply with petroleum rules 1976, 2002 and SMPV rules and other relevant rules.

- 1.4.2 The **exhaust** of chassis will be modified to locate below co-drivers side. One no. PESO approved flame arrestor on the exhaust of vehicle will be provided.

- 1.4.3 One no. **fire screen** made of asbestos sheet sandwiched between MS plates will be provided behind cab and clearing ground by 300 mm. This fire screen will extend up to the cab. No welding or any modifications on factory built cab will be carried out.



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- 1.4.4 Two nos. 10 kg DCP fire extinguisher (BIS approved) will be provided at approved location with brackets for easy removal of fire extinguishers, 1 no 1 kg DCP fire extinguisher will be provided in the driver's cab.
- 1.4.5 **Rear bumper** of an approved design will be provided by to protect rear side of tank and chassis. The Stepney may have to be relocated, if necessary.
- 1.4.6 The **battery box** made up of MS plates will be present on chasis outside the cab. The battery compartment will be lined with thick hard rubber.
- 1.4.7 **2 number Bonding reel** with 30M long **Copper cable** covered with PVC sheeting and 1 no. 30 amp crocodile clip(rust free coating) will be provided.
- 1.4.8 **Bonding arrangement** with PVC sheet covered cable crocodile clip should be provided to each spout, coupling sampling arrangement.

One end of cable will have crocodile clip and other end will be bonded to the metal cable will be provided at the approved location on the chassis member to ground the chassis.
- 1.4.9 An **aluminium box** of approved size & design for storing sampling and other QC equipment will be provided with each vehicle. Also a MS box shall be provided along full length and rear of the chassis, for storing extra hoses etc. This box will be located beneath the aluminium platform.
- 1.4.10 With each vehicle **chokes** of approved design shall be provided for the rear wheels.
- 1.4.11 All the flange connections on the ATF pipeline shall be provided with copper strip jumpers to have electrical continuity.
- 1.4.12 Control panel will have all the gauges installed with testing coupler, visual alarms from the magnetic level indicator.
- 1.4.13 Pipeline circuit with valves will be indicated in plate fixed on the control panel. Operating instructions will also be provided on the panel, with corresponding labels on the each operating valves & equipment for easy identification.
- 1.4.14 Jet sensor protection is to be fitted for the bigger tank at the bottom loading point which is used for flushing hydrant line product.
- 1.4.15 Brake Interlock system to be provided for the vehicle with sensing points at PTO engaging, Sucking nozzle resting housing, Dry disconnect couplers, 2" aircraft nozzle and 3 lug adaptor compatible for 2" pressure nozzle.
- 1.4.16 Float type Hi level protection system for both the tanks. For clean ATF storage tank, bottom entry for flushed product from hydrant line but top entry for sucking clean product through diaphragm based pump.
- 1.4.17 75 to 100 liters of fresh water tank will be required in the vacuum line to clean the pits with isolation valves.
- 1.4.18 The sucking nozzles should be large enough to suck product from pit bottom, as well as secondary pit bottom (old versions).



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1.5 ELECTRICAL CIRCUIT WITH FITMENTS

1.5.1. The existing wiring will be done conforming to PESO regulations and IS standards and will pass through heavy –duty conduits. The conduits will be of adequately sized to accommodate the number of wires passing through it without damaging insulation. Electrical cable will be approved make.

1.5.2. The vehicle will be additionally be provided with following lights:-

- a) Brake lights
- b) Two nos. On tank rear
- c) Two nos. light front end of the cab
- d) One no. beacon light of high lumens on cab centre.
- e) Two number adjustable spot lights will be provided on platform for night operation with switches control panel
- f) Light to indicate the operation of the vacuum pump.
- g) Control panel light in canopy (to be provided by vendor)
- h) Audio and visual alarms from magnetic level indicator on panel.
- i) Light to indicate PTO engagement
- j) LED based brake interlock lights inside cabin and main interlock active/override on gauge panel.
- k) Aviation light on top of cabin of vehicle.

1.5.3. All the lights provided in hazardous area shall be weatherproof and approved by PESO. An electrical master switch will be provided in the cabin.

1.5.4. Following cable sizes will be used:-

- a) 6mm for all small lights, 7 mm for head/spot lights
- b) 8 mm for earthing.
- c) 10 mm for main lead.
- d) 4mm to 6mm for all interlock wiring else higher size required as per equipment.

1.5.5. The vehicle wiring will be laid out in neat and simple manner. Vendor shall provide necessary junction box with circuit breakers/fuses.

1.5.6. The vehicle batteries supplied along with the chassis will be maintained in charged condition.

1.5.7. Bidder will submit details of lights with make and CCOE approval status.

1.6 PAINTING, TESTING AND COMMISSIONING

1.6.1. The ATF tanks will have epoxy lining. The wetted tank surface will be sand blasted and prepared for epoxy coating, immediately after sand blasting, two coats of blast primer at a dry film thickness of 35 micron per coat will be applied. The total dry film thickness should be At least 200 microns.

Following tests shall be carried and certified by paint manufacturer and inspected by DAFFPL's representative: -

- ❖ MIBK (methyl-ISO- butyl – ketone) test.
- ❖ Thickness test using calibrated Elcometer for measuring dry film thickness of each coat paint. Vendor will submit test certificates for these tests. Vendor shall also carry out third party inspection in line with PESO requirement.



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1.6.2. Following are the approved make of paint and thinners:-

- a) Berger
- b) ICI
- c) Asian paint

1.6.3. The completed vehicle will be painted externally as per colour scheme to be provided subsequently by DAFFPL

External painting of tanks will be carried out of **synthetic enamel paint** of approved after suitable surface preparation as per manufacturer's recommendations. All the other parts and equipment shall be painted with first quality synthetic enamel paint after due surface preparation.

Company name (in English & Hindi) and logo will be painted on aluminium board fixed on the larger tank at an approved location.

Following lettering will also be painted on the vehicle:-

- a) Capacity (Hindi & English)
- b) Jet A1 (English)
- c) No smoking (English & Hindi)
- d) Tank cap
- e) Instructions as per MV Act.
- f) Any other as directed by DAFFPL.

1.6.4. **INSPECTION/TESTING**

Inspection agency

a) The scope for third party inspecting agency is as follows:-

- i. Checking and approving the design of the pressure vessels as per the applicable IS 2825 code and SMPV & petroleum rules.
- ii. Approving the fabrication drgs or the vessels including nozzle design and support
- iii. Welder qualification for vessel fabrication
- iv. Testing and approving the tank material
- v. Welding of the tanks
- vi. Stress relieving if any
- vii. Hydro testing of the vessels
- viii. Dimensional check
- ix. Clearance for installation

b) DAFFPL representatives will carry out other operational tests including testing of the pipeline (given below):-

- i. The vacuum pump shall be tested at manufacturer's works and performance certificate for same will be submitted.
- ii. The pipeline shall be hydro tested after welding upto 1.5 times operating pressure or at least 150psi
- iii. The hose reel swivel joints shall be hydro tested and vacuum tested.

c) Tank testing



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- i. The pressure tank shall be tested strictly as per IS 2825 and SMPV rules applicable.
- ii. Both the tanks will be hydro- tested. Similarly vacuum test will be conducted for related vacuum on the tanks. Above tests will be witnessed by corporation's representative.
- iii. After installing the tanks and piping with figments following tests will be conducted.
- iv. Vacuum will be created in one tank by running pump at half the rated speed and time will be measured for creating 1.1 times the rated vacuum.

Above tests will be carried out vendor's workshop.

- v. After creating vacuum will be created in tank and ATF will be sucked from **min 3 metres** suction head. Vacuum pressure in the tank will be noted on complete filling of tank and also time taken for filling the tank which should not be more than 10 minutes. This test will be carried out at DAFFPL's fuel farm at Delhi.
- vi. All the safety valves will be tested after installation by charging tank over the set conditions.
- vii. Both the tanks will be filled with ATF and for smaller tank air pressure at 30 psi will be applied and ATF shall be decanted and for bigger clean tank the ATF will be decanted by gravity.
- viii. Both tanks will be filled with the ATF and vehicle will run on road at 40km/h and suddenly brakes shall be applied to check the mounting and installation of the tanks and fittings. This test will be carried at various intervals.
- ix. Complete pneumatic lines with actuator and float assembly will be tested.

d) DAFFPL representative will witness the above tests. Vendor will submit certificate for the above tests with the complete vehicle.

e) It will vendor's responsibility to inform RTO for non –utilization of chassis and complete necessary formalities. On completion of vehicle vendor will obtain necessary RTO approval(s) and coordinate to get **permanent registration**.

1.7 SUPPLY OF CHASSIS WITH DRIVER'S CABIN

Vendor shall select and supply a suitable chassis (with factory-built driver's cabin) of TATA and LEYLAND or other approved make from the nearest sales office at a price applicable to govt. Bodies after taking clearance from DAFFPL or party authorized by DAFFPL. The technical details of chassis with PTO unit fittings will be specified in the technical bid.

Vendor shall ensure all the standard fittings like driver's and co-driver's seat. Rear mirrors, doors with glasses, toughened wind shield glass, a set of heavy-duty wiper system for cleaning wind shield glass externally, first aid box, electrical panel with all lights switches, fuses, tool kit etc. are to be provided in the cap.

1.8 DETAILED COMMON SPECIFICATIONS

1.8.1 Procurement of chassis shall be in the scope of the bidder. The fabricator will



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arrange the material required for completion of the pit cleaning vehicle in accordance with the specifications mentioned in tender documents.

1.8.2 This specification forms the minimum requirement for the vehicle to comply with DAFFPL standards. The specification also complies with the requirements of following Standards applicable:

- Indian Standard IS 9290
- Petroleum rules 2002 of the Petroleum Act, 1934 (Part IV: Transport on land by vehicles & Third schedule: Design and construction of Tank Vehicles for transporting Petroleum in Bulk)
- IATA - JIG guidelines (latest edition)

This forms the basis for construction of the complete vehicle and the fabricator should advise of any areas of conflict for resolution by the Purchaser.

1.8.3 This specification is to be read in conjunction with the requirements given in above Standards.

2.0 NOTICE TO TENDERS

- 2.1 The fabricator's scope of work includes procurement of chassis, design, fabrication, testing & commissioning of the complete equipment in line with specifications. Any item that is not specified in the specifications but is considered essential for completing the fabrication, meeting the desired performance in all respects, shall be deemed to be in the scope of fabricator.
- 2.2 The fabricator is required to submit 1) General Arrangement Drawing of the vehicle indicating the location of major components and estimated axle loadings, 2) the flow circuit diagram indicating the location of all of the nominated control functions including those listed in this specification with their make and model along with technical bid of the tender and additional items if any not mentioned and 3) Pneumatic & 4) Electrical wiring diagram.
- 2.3 The Purchaser's approval of this drawing does not signify approval of constructional details, unless they are specifically identified on the drawing prior to commencement of construction. Any variation with this specification without approval, compliance with which remains the fabricator's responsibility.
- 2.4 The successful supplier shall have to submit fortnightly progress report.
- 2.5 Where alternatives for specific components can be used, these are specified by the Purchaser in **Appendix B**.
- 2.6 In general, other components, which meet the requirement of this specification, may be selected by the fabricator. However, the selection of certain other components will be influenced by factors such as local spares and service availability etc., and these points should be fully resolved between the Purchaser and the fabricator at the Purchase contract approval stage before the start of manufacture.
- 2.7 Approvals to be obtained by the fabricator from Indian Authorities:

Type approval shall be obtained in writing from the Petroleum & Explosives Safety Organization (PESO), Govt. of India, a statutory body, to build the equipment in accordance with requirements laid down in the Third Schedule of The Petroleum Rules 2002as applicable.

3.0 GENERAL REQUIREMENTS



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3.1 Working Conditions

The working temperature range is given in **Appendix A**.

3.2 Dimensions

The overall width of the motor vehicle, measured at right angles to the axis of the motor vehicle between perpendicular planes enclosing the extreme points, shall not exceed 2.7 meters.

3.3. Maximum height from ground level 3.0 meter (empty condition). The overall dimensions of the vehicle are to be kept to a minimum, consistent with capacity and equipment layout but in any case, must not exceed the dimensions referred above or as specified in **Appendix A** without the prior agreement of the purchaser.

3.4 Stability

For all vehicles; the height of the center of gravity of the load shall not be greater than 95 % of the distance between the outer wall of the supporting tyres measured at the outside of their contact with the ground.

3.5 Vehicle protuberances

All projections from the sides of the vehicle must lie within the general silhouette of the vehicle.

3.6 Configuration

The equipment layout is to be agreed by the Purchaser prior to manufacture. For pit cleaning vehicles the equipment is to be located either behind the main tank or behind the cab or under the tank belly.

3.7 Performance

Suction rate

The maximum required flow rate to suck dirty product and also clean product are given in **Section 1** and **Appendix A**. The required air flow and washing details are also given in **Appendix A**.

4.0 PRODUCT TANK AND FITTINGS

4.1 The tank shall be installed on a suitable rigid chassis.

4.2 The tank shall be designed for net/usable carrying capacity plus 3 % ullage for vapor space, of its net carrying capacity.

4.3 The net/ usable tank carrying capacity is given in **Appendix A**.

4.4 Tank shall be constructed from material as specified in **Appendix A**.

4.5 The tank shall be constructed with single compartment having baffles. Suitable baffles will be provided in the tank so that capacity of each compartment shall not **exceed 3000 ltrs**. The baffle plates will be dished by giving suitable curvature. Baffle plates to be affixed to the tank shell by welding two strips. This is to avoid any areas becoming un-approachable for sandblasting/ epoxy coating wherever applicable.

4.6 A hole with approximate dimension of 500 mm shall be placed midway of each baffle and off center of the center line of tank to allow access to every section of tank. The access holes are to be staggered so that no two holes are in line.



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Access holes to be provided with ring. Access holes (semicircular cut) also to be provided at the top & bottom of each baffle for free movement of air and product.

- 4.7 If the tank is to be constructed from **mild steel material** then interior surface of tank and any other mild steel components coming in contact with fuel will be epicoated with white colour epoxy paint after sand blasting and applying the proper epoxy primer. Tank will be fabricated from MS sheet conforming to specifications IS 5986, Grade Fe 410 or equivalent. Thickness of the tank to be fabricated shall be in line with PESO rules.
- 4.8 Stiffening of tank will be done externally. No tack welding will be done anywhere inside the tank. No gaps should be left blank which cannot be approached for sandblasting/ epi-coating wherever applicable. All welding on outer surface of tank will also be ground to give a smooth finish for painting.
- 4.9 Where possible un-drainable voids could be formed, for example, between baffles and tank wall fillet welds, such spaces are to be fitted with removable plugs at top and bottom to allow purging. Plugs raised above the tank shell top must not present a trip hazard.
- 4.10 The floor of the tank to be free from depressions due to fabrication distortion in which free water could lie, and it is essential to ensure that no pockets of liquid can remain in the tank after draining. Internal bottom welds are to be ground flush. Either the tank floor is to slope longitudinally or troughs with a minimum slope of 1 in 20 are to be provided or slope to commence from front end and rear end of tank, leading to a draw-off sump (bottom most portion of the tank). A minimum transverse tank wall slope of 3° is to be maintained to the troughs.
- 4.11 The base of the draw-off sump is to be steeply sloped to facilitate the removal of accumulation of contamination. The sump must be at least 250 mm dia.
- 4.12 The sump shall be fitted with a 25 mm shear off sump drain valve, 25 mm stainless steel tubing and spring return ball valve.
- 4.13 **Manholes** shall be positioned such that they provide a line of sight to the low point sump wherever applicable. The manholes will be covered by means of Dome type hinged covers made from 10-gauge Aluminum /galvanized sheet of suitable design with proper reinforcement at hinges and locking arrangements.
- 4.14 One of the compartment of tank will be provided with 18" dia **fixed manhole with** relevant fittings like Pressure Vacuum Relief operated vent, emergency vent, perforated fill pipe of Aluminum & dip pipe & dipstick assembly. All other compartments to have **EMCO design manholes**, which can be opened and closed very easily. Make of the manholes to be as specified in **Appendix B**.

4.15 Tank Venting

The vents to be designed and located to prevent any spillage of product when the fully loaded vehicle stands on an incline of 1 in 15, nose up or nose down.

4.16 Internal Venting

4.16.1 Every compartment of tank shall be fitted with an independent vacuum and pressure operated vent with a minimum effective opening of 3 square centimeters; the opening to be covered with two layers of non-corroding metal wire gauge having not less than 11 meshes per centimeter.

4.16.2 The vent shall be so arranged as to limit the pressure within the compartment to 0.21 Kg/cm² and the vacuum to 5 centimeters water gauge.



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4.17 Emergency venting for fire exposure.

- 4.17.1 In addition to normal venting required, every compartment of a tank shall be fitted with an emergency venting facility which shall be of the fusible type so as to provide a minimum fire venting opening having a net area in square centimeters equal to 8 plus 4.3 times the gross capacity of the compartment in Kiloliters.
- 4.17.2 The emergency vent shall be designed as to prevent loss of liquid through the vent in the case of vehicle upset except in the case of pressure rise when in the upset position.
- 4.17.3 Fusible vents shall be activated by elements, which will melt (operate) at a temperature of 93 °C.
- 4.17.4 There must be no possibility of ingress of dirt or water into the tank through vents, pressure/vacuum valves, manhole cover joints etc: The bottom level of all joints, gaskets and vent openings must be a minimum of 25 mm above the tank skin and 15 mm above the surface of any mounting plate. Tank walkways and fittings must not allow the accumulation of water or promote corrosion on the tank top under any weather conditions.
- 4.17.5 Vents should be as per the make and design approved by PESO or by any other statutory body acceptable to PESO.

4.18 Bottom loading (filling / topping up from hydrant low point/high point etc)

- 4.18.1 The vehicle is to be bottom loaded using Jet Automatic Bottom Loading equipment as specified in **Appendix B**.
- 4.18.2 High-level adjusters or flow shut-off sensors to be accessible without the need to enter the product tank.
- 4.18.3 Self-sealing aviation tank couplings (three lug adapter assemblies) are to be installed on the operating side of the Pit Cleaning vehicle. Make of couplings as specified in **Appendix B**.
- 4.18.4 An automatic high level sensing equipment which discharges fuel at high level must be provided with a drain extension pipe carried to the bottom of the tank to prevent free fall of product within the tank.
- 4.18.5 The bottom loading foot valve operating control is to be installed. This is to be located adjacent to the bottom loading connections on the operating side of the vehicle or on the control panel. Where a mechanically operated valve is used, this is to be rod or lever operated and designed to operate the pilot valve only. A stop must be used to prevent inadvertent opening of the main valve.
- 4.18.6 A pre-check test facility shall be provided on the same circuit as the overflow system to provide functional check of foot valve from outside the tank.
- 4.18.7 Deflector plate to be fitted around valve to prevent build up of static charges at high input flow rates.
- 4.18.8 As detailed in **Appendix A**, provision is to be made in the manway for an independent level alarm. This is to be set above the safe fill level and activate a visual and audible alarm to warn the operator that the overflow protection has failed. The type of system will be detailed in **Appendix B**.
- 4.18.9 Tank bottom load pipe work should be designed to eliminate the flexible connections.

4.19.0 Tank discharge (For emptying purpose/decantation)



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- 4.19.1 The tank outlet foot valve is to be capable of Fail safe closing.
- 4.19.2 The operating lever for valve should incorporate shear off mechanism, which will close the valve automatically in case of fire at a temperature of 93°C.

4.20 Road clearance

Minimum laden ground clearance of vehicle (other than axle components) 350 mm.

4.21 Cargo tank overturn protection

Tank overturn protection shall be provided. Strengthening of the tank will be done wherever openings and fittings are provided to the tank shell by reinforcement.

4.22 Cargo tank dipping

- 4.22.1 One dipstick assembly for each tank consisting of an extruded aluminum dip tube/guide to be fitted to the dip connection. The tube to be carried down into the tank and the bottom end to be restrained from vibration by a suitable locating point welded to the tank bottom.
- 4.22.2 A black anodized aluminum dip rod to be housed in the dip tube and should be of anti-rattle design.
- 4.22.3 The cargo tank to be calibrated from dead stock level in 250 litre increments. The top and bottom 1,000 litres in 100 litre increments. Calibration charts to be supplied with the vehicle. Maximum Safe Fill and Minimum fill levels are also to be marked.
- 4.22.4 The dip point shall be located in the longitudinal center of the tank in the compartment having fixed manhole.

4.23 Additional tank fittings

- 4.23.1 Magnetic level gauge for both tanks to be fitted.
- 4.23.2 **An anti-slip walkway** to be fitted, as wide as possible, and extending along the tank to give access to the forward opening manhole lid. Walkway shall be kept clear of all projections and tripping hazards.
- 4.23.3 Access to the tank top walk platform is to be afforded by a **sloping ladder** fitted to tank with "over the top" handrails. Handrails to be 400 mm apart and rungs to have non-skid surface. The top rung to consist of a flat plate with an anti slip surface. Position of the ladder to be agreed with the purchaser.
- 4.23.4 **Certification plate** to be neatly secured on tank and must bear all design and testing information.
- 4.23.5 **Tank top drainage** shall be via a minimum of 2 x 25 mm tubing connected into the rear side of tank if the tank slope is towards rear side and at both ends if the tank is installed with horizontal configuration with a draw off sump slope at the center.
- 4.23.6 Tank will be mounted on the chassis firmly. Suitable rubber packing of one-inch thickness of good quality will be provided between the chassis and tank support wherever applicable. Metal block preferably of aluminum provided in the channel of chassis frame wherever "U" bolts are used for mounting of tank / any equipment on chassis frame.



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4.24 Testing

The tank shall be tested by hydro static pressure of not less than 0.316 Kg/cm². The pressure shall be maintained for a period of not less than 1 hour and shall be gauged at the top of the tank. The remaining tanks shall be fabricated similar to that of first approved after inspection/testing.

5.0 FUEL PRESSURE CIRCUIT

- 5.1 The piping system, and all components are to be designed for working pressure of 50 psi and a hydrostatic test pressure of 240 psi (16 bar). Pipe work & components downstream of the meter to be designed to accept a hydrostatic test of 300 psi (20 bar).
- 5.2 Pipe work downstream of each meter valve to incorporate threaded test connections and plugs.
- 5.3 A remote engine speed control (throttle control) is to be fitted on the panel to provide positive adjustment of the pump RPM between maximum and minimum, both increasing and decreasing.

6.0 MAXIMUM SPEED LIMIT STOP

The remote speed control is to include an adjustable maximum limit stop .Engine tachometer (Pump RPM) to be fitted on fuelling control.

7.0 POWER TAKE OFF UNIT

- 7.1 Suitable power take off unit shall be provided by the fabricator through manufacturer of chassis or its authorized dealer.
- 7.2 Propeller shaft connecting the PTO to vacuum pump to be provided and installed by the fabricator. (if the chassis manufacture is not providing along with the chassis)This shaft will have universal joints at both the ends and spline joints in the middle to take care of any increase/decrease in length. The propeller shaft should be dynamically balanced. Test certificate for the same should be obtained and submitted to DAFFPL at the time of performance test.
- 7.3 Suitable lever will be provided for PTO unit inside the driver cabin. The operation of this lever will be pneumatic. Arrangement should also be made to lock the lever with PTO in engaged position as well as in disengaged position. When the PTO is in engaged position, an amber light should be activated in the driver cabin as warning not to drive and also brake interlock should be activated.

8.0 HOSE REELS AND PRODUCT HOSES

8.1 Product Hoses

8.1.1 As mentioned in **Appendix A**, the product hoses have to be provided that are to be of approved aviation type (API 1529, Grade 2, and Type C) where ever mentioned. Sizes, lengths and make are to be as specified in **Section1** and Appendix B. Hoses are to be connected using approved couplings.

8.1.2 Hose testing points:

Suitable fittings with isolation valves to be provided near to all hoses for carrying out in situ hose pressure testing with out removing the hoses.

8.2 Hose reels

8.2.1 The hose reel must incorporate ball or roller bearings and the system is to



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be such that the reels unwind freely under all conditions. Special emphasis is to be given to freeness in operation when the system is operative and the operating handle is set in the unreeling position. The hose reels must be provided with contoured guard plates underneath to prevent hoses from jamming during unreeling but be such that excessive overrun is avoided while removing hose.

8.2.2 The hose reels are to be rewound by electric motors refer to **Appendix A**, via heavy duty roller chain drives. Provision to be made for adjustment of chain tension. **The hose reels are to be rewound by electric motors of flameproof/ explosion proof type only for the hoses of 1.5 inch or more dia and 30 ft or more long.**

8.2.3 Electric rewind hose reel is to be capable of reeling in the full length of hose, fully loaded with product and laid out in a straight line from the reel on dry, smooth concrete. The reel speed is to be designed to give 0.5m/s at the end of the reeling operation.

9.0 **PIPE FITTINGS**

9.1 All piping and pipe fittings in contact with product to be of Stainless steel, minimum specification ANSI code schedule 10s for pipe and fittings, and schedule 40S for screwed fittings and pipe/fittings below 50NB materials grade 304L or equivalent. Stainless steel tubing and compression fittings shall be used for piping 25NB and below.

9.2 All pipe joints to be flanged to ANSI standard B 16.5, pressure rated to the system. Victaulic or other types of flexible connections in the pipe work are not acceptable on the downstream side of the pump.

9.3 All screw threads are to be of NPT standard. Nuts and bolts are to be grade 304 Stainless Steel and either self locking or fitted with heavy duty spring washers.

9.4 Layout should be as simple as possible with the minimum possible number of pipe bends and junctions.

9.5 Pipe work to be sized to economically meet the performance requirements within the constraints of the permitted pumping pressure and hose-end pressure stipulations.

10.0 **BRAKE INTERLOCK**

10.1 Electric solenoid operated brake interlock as specified in **Appendix A**.

10.2 A brake-interlock system amber warning light, 50 mm dia. to be located in the cab in a prominent position on the dashboard visible also from outside of the vehicle. The light to flash to indicate that the system is active apart from amber light at gauge panel.

10.3 All interlock related equipment shall be mounted in suitable housing cabinets that are easily accessible at all times. It is preferred that such equipment is not mounted behind the vehicle dashboard.

10.4 All electrically operated system is to be intrinsically safe and should incorporate sealed proximity switches with a wide adjustment for operating tolerance, Reel hose couplers, PTO and Loading points. The electric operating controls are to interface with a pneumatic circuit in the parking brake system.

10.5 A system panel to be provided to indicate the status of all interlocks and provide fault indication and mounted in the gauge panel. Each circuit board and panel to be provided with a single quick connect plug to allow easy interchange.

10.6 An air operated, all pneumatic system, is to incorporate an auxiliary pneumatic



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system installed on the truck chassis which will obtain its supply of compressed air from the chassis brake system compressor. The air provided is to actuate the interlock and other safety systems described in this specification. The system to consist of a 30 liters air reservoir fitted with an automatic water drain valve, pressure protection valve and strainer/lubricator. Auxiliary air is received via the pressure protection valve which isolates the auxiliary system at main air pressures of less than 85 psi. Also isolated air tank will be required for operation of diaphragm based pneumatic pump.

- 10.7 The system must be fail-safe such that it is active when any air line is broken.
- 10.8 All exhaust ports on pilot air valves to be fitted with mufflers to give weather protection to open orifices.
- 10.9 A pneumatic interlock override switch shall be installed within easy reach of the driving position. The switch shall have provision for wire/lead sealing in the non-overridden position. Activating the override shall cause a large (50 mm dia.) red light on the dashboard (visible also from outside the cab) to flash.

11.0 **BONDING**

Hand rewind static reel fitted with 30 meters of kink resistant PVC coated multi strand wire made of **copper wire** with a heavy-duty clip be provided. Maximum resistance from end to end should not be more than 5 ohms.

12.0 **AIR TANKS**

- 12.1 Air tanks, when used, shall be fitted with cable operated drain lanyards.
- 12.2 An air dryer is to be fitted to the pneumatic system.

13.0 **SAFETY EQUIPMENT FIRE EXTINGUISHERS**

- 13.1 Two open topped scabbards to house 10 kg (20 lbs) dry powder fire extinguishers are to be installed, one on each side of the vehicle. They should be drainable chute type containers and fitted with internal rubbing strips to prevent chaffing. The scabbards should be ergonomically located and at approximately 300mm to the vertical plane to obviate the need for mechanical fastenings, and the top handles of the extinguishers should clearly protrude. Fire extinguishers are to be supplied unless called for in **Appendix A**.

13.1.2 A 1 Kg dry powder extinguisher and mounting bracket is to be installed in the cab of the vehicle.

14.0 **ENGINE EXHAUST SYSTEM**

- 14.1 Exhaust pipe of engine to be routed so that it is on the passenger side of the vehicle. This is to be fitted with a perforated mesh shield.
- 14.2 Spark arrestor to be fitted. This should be of approved make by Chief Controller of Explosives, Govt. of India or of any other statutory body acceptable to PESO. The plate indicating PESO approval reference to be affixed to the arrestor.
- 14.3 Fire screen will be provided at the back side of the cabin. Fire screen will extend up to 12 inch from ground level. Fire screen will be made by sandwiching asbestos sheet between two steel sheets. Fire screen should be sturdy and should be fitted firmly.
- 14.4 Fuel tank to be relocated on passenger side of chassis. All flexible fuel lines in the engine fuel system must be armour braided externally.

15.0 **ENGINE AIR INDUCTION SYSTEM**



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The air induction system shall be relocated, if required, and/or protected so as to minimize the possibility of induction of fuel from any spillage of flammable liquid, from any release from a safety relief device or breather valve on the cargo tank, from any release of liquid from the aircraft being serviced (e.g. from wing tip vents or from refuel/defuel receptacles) or from ruptured hoses.

16.0 VEHICLE ELECTRICAL SYSTEM

All electrical wiring to meet PESO regulations. The wiring should pass through fire retardant plastic conduit. Please refer details in section 1.

17.0 BATTERIES

17.1 The battery isolation switch must be fitted. A battery boost socket to be fitted adjacent to the switch. A label to be fitted to the boost socket to identify the vehicle voltage.

17.2. The batteries must be easily accessible for maintenance. This must also be considered once the unit has been completed.

17.3 The battery box is to have a minimum insulation thickness of 4 mm.

17.4 Earth leakage test continual display to be provided for systems of double pole wired.

17.5 All additional circuits added by the fabricator & controlled by switches are to be located in the cab & adequately protected by fuses, located in a fuse box & clearly identified.

18.0 VEHICLE LIGHTS

18.1. Please read in continuation to point 1.5.2

18.2 A transistorized amber flashing light with an output of min 40 and max.400 Candelas and a flash rate between 60 and 90 flashes per minute is to be fitted centrally on the cab roof, to be visible through 360° in the horizontal plane. The light to be controlled by a switch in the cab. It is to be wired into the ignition circuit independent of the side/ tail lamp and its function is to be labeled. A warning light is to be provided adjacent to the switch, which operates with the amber light.

19.0 DRIVER'S CABIN

The cabin built by the fabricator of chassis to be modified for meeting the requirement of PESO.

20.0 OPERATING PANEL AND CONTROLS

20.1 The essential Fuelling equipment controls to be grouped at one location on the driving side of the vehicle. The location of the operating panel is to be agreed with the purchaser.

20.2 The following instruments and controls, where applicable, are to be grouped on the panel, arranged for easy operation and access for maintenance.

- (a) Pump Pressure Gauge, 0-150 psi (0-10 bar)
- (b) Pump vacuum gauge.
- (c) Air Pressure Gauge.
- (d) Pressure gauge test point, comprising a dry break Coupling and isolation valve.
- (f) Vacuum and pressure selector control.



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- (g) Engines throttle control.
- (h) Flow circuit diagram and operating instructions in the form of an engraved plate.
- (i) Pneumatic pump ON/OFF Control.
- (j) Brake Interlock lights
- (k) Pump/Engine rpm gauge.
- (l) Emergency Engine stop button.

20.3 The following items are to be located in the vicinity of the control panel.

- (a) Sample cabinet
- (b) Closed circuit sampler-
- (c) Tank foot valve control (Where ever applicable)

20.4 All gauges and controls must be neatly laid and clearly labeled with either screwed or riveted fixings. The use of adhesive to secure labels is unacceptable. Calibration of all gauges to be in PSI & KG/CM². Least count of the gauges should be 2 psi.

21.0 QUALITY CONTROL FEATURES

21.1 Drain plugs to be provided at all low points in the pipe work and on items of equipment, which would not otherwise drain completely.

21.2 Sample points are to be provided at the following locations:

- (i) Product tank sump and
- (ii) Product recovery tank.

21.3 The tank sump sample line is to be 25mm (1 inch). Stainless steel tubing is to be used. A stainless-steel ball valve to be fitted at the upstream end-of each sampling line' (i.e. where the line exits from the tank or filter). At the downstream end of all sample and drain lines a spring return valve is to be fitted, reference **Appendix B**.

21.4 Sampling lines are to be routed to the control side of the vehicle and grouped together, using minimum lengths of tubing. The outlets to be spaced at approximately 200 mm centers. The discharge from each sampling ball valve is to be directed vertically downwards and is to be sealed with a cam-lock type quick release cap with retaining chain. Each outlet is to be labeled and provided with a padlocking device. Gang locking is preferred.

21.5 A sample equipment stowage box, approx. 400 mm x 300 mm in aluminum/SS is to be fitted on the control side of the vehicle and provided with a lockable lid. The door to be restrained such that it provides a flat surface when opened.

21.6 A tank of 70litres capacity in SS is to be fitted on the other side of the vehicle for storing fuel tested with water detecting capsules. The bottom of the tank is to be steeply sloped for complete drainage and provided with drain line of 25mm dia fitted with spring return valve. The top surface of tank to have heavy duty large size funnel and 250 mm size lockable cap and 40 mesh gauge filter.

21.7 NRV shall be there for 2KL tank and wherever else is required in PCV.

21.8 All drain valves shall be spring actuated auto closing valves of Apollo-Make.

21.9 Flow meters shall be installed to note the quantity of fuel drained at each low & high points.

21.10 Ball valves shall be thereafter each meter unit.

21.11 Polyurethane painting of pipeline and other items.

21.12 Provision of support brackets for flow meter constructed from MS plates dule sand blasted & polyurethane paint coated.



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22.0 CLOSED CIRCUIT SAMPLER

- 22.1 The closed-circuit sample container of 4 liters capacity is to be installed on the control side of the vehicle which is in the line of bigger tank (6KL) for sampling of clean ATF
- 22.2 The inlet ball valve is to be spring loaded, and the container is to be illuminated from behind.
- 22.3 Valve shall be provided for/with running ATF manual point.

23.0 INFORMATION FOR USE

- 23.1 Marking
- 23.2 Name plate
- 23.3 Chassis model and chassis & engine number
- 23.4 Additional data, if any
- 23.5 The tyre pressures are to be set at the tyre makers recommended pressure for the laden vehicle. Robust labels showing the tyre pressures are to be riveted to the top outermost portion of the mud wings. They should be marked in PSI.

24.0 SAFETY MARKING

- 24.1 All emergency buttons are to be colored red. All other operating buttons are to be in yellow.
- 24.2 All critical items are to be clearly labeled to allow safe operation.

25.0 INSTRUCTIONS

25.1 Verification of requirements

- 25.1.1 The vehicle acceptance is to be subject to the Purchaser's inspection and approval during construction (2 visits) and before delivery (1 final visit). The cost of travelling will be borne by the fabricator. The fabricator will have to impart training on all aspects of the Pit Cleaning vehicle to operating personnel.
- 25.1.2 The Vendor is to give at least one week's notice of the final inspection prior to delivery.
- 25.1.3 The complete vehicle including chassis, is to be checked by the Vendor prior to submission for inspection by the Purchaser's representative to prove:
 - a) Compliance with axle and gross weight restrictions.
 - b) Satisfactory compliance with specification & drawings.
 - c) Hydrostatic pressure test to 240 PSI of all pipe work and components to specification requirements.
 - d) In situ pressure testing of hoses to 300 PSI.
 - e) Full flow fuelling tests using Jet A1, to confirm compliance with flow rate and pressure drop requirements.
 - f) Functional test of all the vehicle systems as detailed in the specification.
 - g) The vehicle is to be road tested by the Fabricator to test road worthiness and compliance with specified construction standards.
 - h) Availability of all approvals as desired in this specifications.



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- 25.1.4 A completed manufacturers inspection report is to be submitted to the Purchaser prior to acceptance testing indicating that the vehicle is fit to be released for use.
- 25.1.5 The Fabricator shall arrange all necessary test fluid, test equipment, gauges, labour etc. to carry out all necessary tests to prove compliance with specifications and shall rectify shortcomings where they do not meet the spirit of the specification.
- 25.1.6 Prior to acceptance of the vehicle at point of delivery, there will be a requirement for operator training and proving the vehicle fit for operational use.

26.0 MISCELLANEOUS EQUIPMENT AND REQUIREMENTS

- 26.1 Single mud wings in fire retardant plastic or aluminum are to be supplied and fitted over the rear wheels of the tractor and trailer.
- 26.2 Large area mud flaps to be fitted to the rear edges of the front and rear mud wings. These flaps to be made from regulation materials and are to be carried down to within 75 mm of ground level in the laden condition.
- 26.3 Platform ladder steps to be provided and provision of stowage made on the Pit Cleaning vehicle or trailer.
- 26.4 The supporting sub-frame is to be designed to give full access to adjacent units for servicing and replacement.
- 26.5 All dial pressure gauges used in the dispensing and hydraulic system to have stainless steel bezels, be UV stabilized glycerin filled, fitted with snubbers to reduce needle oscillations and be dual marked in psi and kg /cm².
- 26.6 All swivel joints used throughout the fuelling system are to be twin ball track stainless steel type and make as specified in **Appendix B**.
- 26.7 No grease nipples are allowed on any swivel or other joints in the fuelling circuit. All such couplings shall be supplied pre-packed for life, and installed for complete weather protection.
- 26.8 All seals, joints, O rings, washers etc. which come into contact with the product carried by the vehicle are to be of Buna-N or Viton A material or agreed with the Purchaser as compatible with Aviation fuel (Jet A-1). Plastic pipes are not to be used in any product line.
- 26.9 Corrosion due to the contact of similar metals between the chassis the sub-frame or any other equipment is to be prevented by painting the surfaces before assembly with a Zinc rich based primer.
- 26.10 All units and equipment to be positioned to give unhampered access for all routine servicing and maintenance of the complete vehicle. All major items of fuelling equipment are to be easily removed.
- 26.11 Electric, pneumatic and hydraulic equipment and control devices are to be kept to a minimum. Provision must be made for manual operation of any control if it is normally servo operated.
- 26.12 All product and vapour return pipelines connected into the cargo tank must be designed to prevent the free fall or spraying of product into the tank.
- 26.13 All pneumatic tubing used in the pneumatic circuits must be shielded in split conduit,



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colour coded ultra violet resistant cross referenced to the circuit diagram and impervious to direct sunlight.

- 26.14 All valves used for handling product must have stainless steel internals unless otherwise specified.
- 26.15 Decals to be provided for the diesel and indicating the product, grade and volume of each tank.
- 26.16 All connections are to be tamperproof and lockable type.
- 26.17 All electrical circuits added by the fabricator shall be colour coded and preferably numbered at all terminals.

27.0 **LITERATURE/ OPERATION AND MAINTENANCE MANUAL**

- 27.1 Two copies of the fuelling equipment Operation and Maintenance manual are to be supplied with each vehicle.
- 27.2 The literature will be fully descriptive and include a comprehensive spare parts list, detailed drawings of the fuel flow circuit, pneumatic, hydraulic and electrical systems and copies of all approvals, approved drawing by PESO and final inspection report. It will also include a written procedure for the vehicle operation.
- 27.3 A proof copy of the literature is to be submitted at least three weeks before delivery of the vehicle.
- 27.4 Copies of approvals will also be forwarded to this office for our record and regional office for further necessary action at their end

28.0 **INSURANCE**

- 28.1 The complete unit including chassis is to be fully insured by the Fabricator against loss, damage, and third party risks whilst it is in the Fabricator's premises and till delivery to final destination.
- 28.2 The Purchaser will take responsibility for the vehicle when the order contract commitment is complete.
- 28.3 The Fabricator is to insure the vehicle against all risks for shipping, storage and transportation until delivery to final destination.
- 28.4 All vulnerable items lights etc. must be protected against damage during transit.
- 28.5 All loose or easily removable equipment is to be removed and stowed in secure container and locked in the cab with any other loose spares and components.
- 28.6 Copies of all relevant documents, operating instructions, filter elements and vehicle keys are also to be locked in the cab.
- 28.7 The vehicle is to be gas free to a level consistent with the shippers/ transporters requirements.

29.0 **GUARANTEE AND SPARES**

- 29.1 The Fabricator is to guarantee the tanks for any structural failures and the mountings for a period of five years from the date that it is put into service.
- 29.2 The Fabricator must ensure that the all bought out items cover guarantee/ warrantee to ensure for trouble free working and to replace defective materials free of cost for which responsibility lies with the fabricator as single point responsibility.



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29.3 Fabricator to supply parts and labour warranty or pay local labour costs for repairs within the guarantee period.

29.4 The Fabricator is to ensure that fuelling equipment spares are available for 5 years minimum. If spares become unavailable, the user is to be given adequate notice.

30.0 DRAWINGS AND DIAGRAMS

The Following Drawings and Diagrams are to be submitted both in hard and soft copies, 2 numbers of each for each vehicle along with the technical bid

30.1 General arrangement

30.2 Tank drawings

30.3 As built drawings.

30.4 Fuel flow, Hydraulic, Pneumatic, Electrical systems

31.0 RTO FORMALITIES

31.1 All the formalities in connection with the RTO shall be completed by the fabricator.

31.2 After the Pit Cleaning vehicle is ready, the fabricator will complete the temporary registration and road permit formalities with the local regional transport authorities on our behalf and will also obtain insurance at his own cost for the vehicle for the destination advised by us. No separate charges will be paid for completion of registration and insurance formalities.

31.3 The transportation of the Pit Cleaning vehicle to the final destination will be arranged by the fabricator ex their works. With each completed Pit Cleaning vehicle, the fabricator will give complete documents like registration certificate, road permit, insurance cover and other relevant documents received with chassis.

31.4 Payment for any statutory levies like octroi or toll tax, if, applicable enroute for transportation of Pit Cleaning vehicle shall be made by the fabricator and will be reimbursed at actual on submission of proof of payment.

31.5 The fabricator will have to position a technician **within 48 hours to take care of** refueling segment maintenance problems of the Pit Cleaning vehicle for a period of **24** months.



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APPENDIX A

Vehicle Data Sheet for supply of Pit Cleaning vehicle-

Region / Country		India
Product		JET A1
Type		Pit Cleaning Vehicle
	Item	Details
1.	Temperature range	-15 °C to 55°C
2.1	Max. Dimensions: Length	12 meters
2.2	Height	3.0 meters
2.3	Width	2.6 meters
3.1	Flow rate: Discharge Rate (PTO Pump)	3600LPM AIR
3.2	Loading Rate (pneumatic pimp)	50LPM
4.1	Tank Capacity	6000litres & 2000Litres
4.2	Tank material (Shell, Dish end , Baffles)	Mild steel with epi-coated
4.3	Sump valve operation-	Spring Loaded Valves
5.1	Independent high level alarm	Yes (For both Tanks)
5.2	Tank contents gauge	Yes
6.1	Vacuum pressure pump - PTO based	Air Cooled, 3600LPM flow 500-600mm Hg Vaccuum and 0.5 KG/sq.cm pressure
6.2	Product pump- Air Operated	SS Diaphragm based with min suction lift 3to 4 metre, min flow rate 30-40lpm free flow at air pressure 75-100psi.
7.1	Reel Hose	Yes
7.2	Hose Rewind (more than 1inch)	Electric D.C. Motor
7.3	Hose Beads	Yes
8.1	Special nozzle with pipe for suction	1 for clean and 1 for dirty
8.2	Low point dry disconnect adaptor	2 no (different size)
9.1	Brake interlock System	Electro-pneumatic
9.2	Number of Bonding/ Earthing reels	2 numbers, One of each side
10.1	Fire Extinguisher: 10 Kg-DCP & 1 Kg-DCP	2 numbers & 1 no respectively
10.2	Closed circuit sampler	Yes
10.3	SLOP Tank (Conical Bottom) with Mesh.	70Litres

APPENDIX B**List of Specified items for Pit Cleaning vehicle**

Item	Supplier	Specification	Type/ Model
Sump Valves	Carter/Whittaker,		
Manhole Covers	Emco type	Standard design	Indian make
Jet automatic bottom loading valve	Carter, USA/ Whittaker, USA	4" size	Whittaker – F614A + F613ACD
3 Lug adapters	Carter/Whittaker,	3"	Whittaker F417
Tank Content gauge 6"	Bayham, United Kingdom	150 mm, Dial Type	DR 150 AIRCRAFT
Reel Hose	Elaflex, Germany or Hewitt , USA	API 1529	Grade 2, Type C with Neon Yellow Band
Underwing Refuelling nozzle (without HEPCV),	Carter USA	Model 64200	64200CDE6P
Springreturn Valves	Apollo, USA	AISI 316	

Note: Victaulic or other types of flexible connections in the pipe work are not acceptable on the downstream side of the pump. All the above components (in the delivery line), wherever applicable, should have flange joint connections.

APPENDIX C**Purchase of Chassis**

1. The purchase of chassis suitable for fabrication of required pit cleaning vehicles shall be in the scope of the fabricator. It should be from a reputed manufacturer like ASHOK LEYLAND /EICHER /TATA or equivalent. The model shall be equivalent or higher to AL 1615. The Chassis should be with factory built-in-cabin and PTO meeting BS- VI certification suitable for the requirement of pit cleaning vehicle.
2. The manufacturing date of chassis should preferably of the month in which LOI is issued. However it shall not be older than three (03) months from date of issue of LOI/PO.



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ANNEXURE II – DEVIATION SHEET

EXCEPTION AND DEVIATIONS STATEMENT				
S.NO.	PAGE NO. OF TENDER DOCUMENT	CLAUSE NO.	SUBJECT	DEVIATIONS

Bidder shall list all the deviations in the following given format only on their Letterhead. The Deviation sheet should be submitted along with technical bid.

In case no deviation sheet is submitted along with technical bid, it would be concluded that bidder has accepted all specifications, terms and conditions.

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

ANNEXURE III – DECLARATION SHEET

Date:

DECLARATION

We, M/s _____ hereby, unconditionally accept all terms & conditions of TENDER NO.: DAFFPL/FF/PCV/2021-22/02 (JOB: TENDER FOR DESIGN, FABRICATION & SUPPLY OF 02 NOS PIT CLEANING VEHICLES) including Scope of job, quantities, completion period, terms & condition without any deviations.

Sign & Stamp of Bidder

Note: In case of deviations (whether technical or commercial) the above declaration should not be submitted, and the deviations should be mentioned separately on bidders letter head with the heading "DEVIATION SHEET". In absence of "DEVIATION SHEET", it would be concluded that bidder has submitted his offer as per tender specifications, terms & conditions. Corrections in tender booklet will not be accepted.

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

ANNEXURE-IV

PROFORMA OF BANK GUARANTEE (EARNEST MONEY DEPOSIT)

(On Non-Judicial Stamp paper for appropriate value)

BANK GUARANTEE NO. :

BANK GUARANTEE AMOUNT:

CLAIM:

(Till 120 days from date of submission of Proposal)

TENDER NO. /DATE:

JOB DESCRIPTION/

LOCATION:

Tender Security No. [*]

Name and Address of the Beneficiary: Delhi Aviation Fuel Facility (Private) Limited
Aviation Fuelling Station, Shahabad Mohammadpur, IGI Airport, New Delhi – 110 061, India

We [*name and address of the issuing bank*] have been informed that [*Name of the Interested party*] (hereinafter called the “Interested Party”) is submitting a proposal for the Award of the Works in response to a Request for Proposal (“RFP”) by Delhi Aviation Fuel Facility (P.) Ltd. (“DAFFPL” or ‘Beneficiary’) for [*Insert description of work*] (“Works”). The conditions of the RFP, which are set out in a documents entitled Request for Proposal dated [*Please insert*] require its offer to be supported by a Tender Security.

At the request of the Interested Party, we hereby irrevocably undertake to pay you without demur, the Beneficiary, any sum or sums not exceeding Rs. _____ [*Please insert*].

Upon receipt by us of your demand in writing and your written statement (in the demand) stating that:

- 1) The Interested Party has, without written consent of DAFFPL, withdrawn its offer after the latest time specified for its submission and before the expiry of its period of validity; or
- 2) The Interested Party has refused to accept the correction of errors in nits offer in accordance with the instructions to Interested parties contained in the RFP; or

Sign & Stamp of Bidder



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- 3) DAFFPL entered in to the contract with the Interested party but the Interested party has failed to deliver the **COMPOSITE BANK GUARANTEE (SECURITY DEPOSIT & PERFORMANCE)** in compliance with the Contract conditions; or
- 4) The Interested Party has failed to enter into the Contract within 30 (Thirty) days of being required to do so by the Tender Officer.

Any demand for payment must contain your signature(s). The demand must be received by us at this office on or before the expiry of the earliest of the following dates, when this security guarantee shall expire and shall be returned to us:

- a) Date of issue of letter communicating to the Interested Party that it has not qualified for the contract or the Proposal submitted by the Interested Party is unsuccessful or the TENDER is withdrawn and/or cancelled by the Beneficiary; or
- b) 7 (seven) days after the date of delivery of an acceptable performance bond complying with the Contract conditions and execution of the Contract after the award of the works to the Interested Party; or
- c) 120 (One hundred twenty) days from the last date of submission of Proposal in accordance with the TENDER.

Date:

Signature:

Designation:

Name of the Branch

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

ANNEXURE-V

PROFORMA OF COMPOSITE BANK GUARANTEE (SECURITY DEPOSIT & PERFORMANCE)

(On Non-Judicial paper of Rs. 100/-value)

To,

DAFFPL

Dear Sirs,

M/shave taken tender for the workfor DAFFPL,.

The tender Conditions of Contract provide that the Contractor shall pay a sum of Rs. (Rupees) as security deposit & performance guarantee in the form therein mentioned. The form of payment of security deposit & performance guarantee includes guarantee executed by Scheduled Bank at New Delhi, undertaking full responsibility to indemnify DAFFPL, in case of default. The said party have approached us at and their request and in consideration of the premises we having our office at have agreed to give such guarantees as hereinafter mentioned.

1. We -----hereby undertake and agree with you that if default shall be made by M/s. -----in performing any of the terms and conditions of the tender or in payment of any money payable to Daffpl. We shall on demand pay to you, without demur, protest or requiring you to seek recourse to M/s _____, in such matter as to you may direct the said amount of Rupees ----- only or such portion thereof not exceeding the said sum as you may from time to time require.
2. You will have the full liberty without reference to us and without effecting this guarantee, postpones for any time or from time to time the exercise of any of the powers and rights conferred on you under the contract with the said -----and to enforce or to forbear from endorsing any powers of rights or by reason of time being given to the said -----which under law relating to the sureties would but for provision have the effect of releasing us.
3. Your right to recover the said sum of Rs. ----- (Rupees -----) from us in manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. -----

Sign & Stamp of Bidder



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- and/or that any dispute or disputes are pending before any officer, tribunal or court.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up dissolution or change of constitution or insolvency of the said -----but shall in all respect and for all purposes be binding operative units payment of all money due to you in respect of such liabilities is paid.
 5. Our liability under this guarantee is restricted to Rupees -----our guarantee shall remain in force until -----unless a suit or action to enforce a claim under Guarantee is filed against us within six months from -----(which is date of expiry of guarantee) all our rights under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.
 6. NOT WITHSTANDING anything hereinbefore contained our liability under this Bank Guarantee is restricted to Rupees -----(Rupees -----).This Bank Guarantee shall be valid up to -----and we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before.
 7. This guarantee is to be returned to us within fifteen (15) days from the date it ceases to be in force. If the guarantee is not returned to us within the date of aforementioned it shall be automatically cancelled.
 8. We have power to issue this guarantee in your favour under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney dated -----granted to him by the Bank.

Yours faithfully

-----Bank
By its Constituted Attorney
Signature of a person duly
Authorized to sign on behalf of the bank

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

Annexure- VI

Form of Letter of Undertaking

[On the letterhead of the Interested Party]

Letter of Undertaking

Date:

Delhi Aviation Fuel Facility (Private) Limited
Aviation Fuelling Station, Shahabad Mohammadpur,
IGI Airport, New Delhi – 110 061, India

Re:

The undersigned Interested Party acknowledges that the TENDER issued is confidential and personal to the undersigned Interested Party and hereby undertakes and agrees as follows:

1. **“Confidential Information”** means the TENDER and everything contained therein, all documentation, data, particulars of the Works and technical or commercial information made by (or on behalf of) Delhi Aviation Fuel Facility (Private) Limited or obtained directly or indirectly from Delhi Aviation Fuel Facility (Private) Limited or its representatives by the undersigned Interested Party or which is generated by the undersigned Interested Party or any information or data that the undersigned Interested Party receives or has access to, as a result of the TENDER, as being confidential information of Delhi Aviation Fuel Facility (Private) Limited, provided that such term does not include information that (a) was publicly known or otherwise known to undersigned Interested Party prior to the time of such disclosure, (b) subsequently becomes publicly known through no act or omission by undersigned Interested Party or any person acting on its behalf.
2. The undersigned Interested Party shall maintain the confidentiality of Confidential Information in accordance with procedures adopted by the undersigned Interested Party in good faith to protect confidential information of third parties delivered to it, provided that the undersigned Interested Party may deliver or disclose Confidential Information to its authorized representatives who agree to hold confidential the Confidential Information substantially in accordance with the terms of this Undertaking.
3. The undersigned Interested Party shall not at any time whatsoever:
 - (i) Disclose, in whole or in part, any Confidential Information received directly or indirectly from the Delhi Aviation Fuel Facility (P) Limited to any third party.

Sign & Stamp of Bidder



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(ii) Reproduce, publish, transmit, translate, modify, compile or otherwise transfer the Confidential Information.

4. In case the Proposal of the undersigned Interested Party is not accepted and immediately upon the acceptance of the Proposal of any of the other Interested Party, the undersigned Interested Party, shall:

(i) Return all Confidential Information including without limitation, all originals, copies, reproductions and summaries of Confidential Information; and

(ii) Destroy all copies of Confidential Information in its possession, power or control, which are present on magnetic media, optical disk or other storage device, in a manner that ensures that the Confidential Information is rendered unrecoverable.

5. The undersigned Interested Party shall certify to Delhi Aviation Fuel Facility (Private) Limited that it has returned or destroyed such Confidential Information to the Delhi Aviation Fuel (Private) Limited within two (2) days of such a request being made by Delhi Aviation Fuel (Private) Limited.

Name of Interested Party's

Signature of Authorized Representative

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

Annexure VII

DECLARATION to be submitted along with Technical Bid

(M/s. _____) hereby declare / clarify that we have not been banned or delisted by IOCL/BPCL/DIAL or any government or quasi Government agencies or Public Sector Undertakings.

Stamp & Signature of the bidder

NOTE: If a bidder has been banned by IOCL/BPCL/DIAL or any Government or quasi Government agencies or PSUs, this fact must be clearly stated with details. If this declaration is not given along with the technical bid, the tender will be rejected as non-responsive.

Sign & Stamp of Bidder



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ANNEXURE VIII

STATEMENT OF CREDENTIALS

(A)

1. NAME AND CORRESPONDENCE ADDRESS OF THE TENDERER

PERMANENT ADDRESS OF THE TENDERER

2. TELEPHONE NO. _____

MOBILE NO. _____

3. NAME OF CONTACT PERSON(s): _____

4. NAME OF THE AUTHORISED SIGNATORY: _____

5. E Mail ID: _____

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

(B) TYPE OF BUSINESS ENTITY:

1. YEAR OF ESTABLISHMENT OF THE FIRM: _____

2. SOLE PROPRIETORSHIP: - _____

(Give Name of the Proprietor)

OR

3. PARTNERSHIP FIRM?

(Give names of the Partners and enclose scan copy of Partnership deed)

1. _____

2. _____

3. _____

4. _____

OR

4. PRIVATE OR PUBLIC LIMITED COMPANY?

(Attach list of Directors and copy of Certificate of Incorporation as defined in "Other Mandatory Documents")

(C) Details of Completed Purchase Orders of minimum value as per Pre-qualification criteria (PQC/BQC) during last SEVEN years as specified in PQC/BQC of the tender.

Sign & Stamp of Bidder



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Sl. No	Particulars	1	2	3
a	Party's Name to whom supplied, Clear Postal Address, Telephone/Fax Nos and E-Mail Address.			
b	<u>Purchase Order Details-</u>			
	PO Reference No.			
	PO Date			
	PO Value (Rs. in Lakhs)			
c	Quantity & place of supply			
d	Scheduled time of completion as per PO			
e	Date of commencement of supply			
f	Date of completion of supply			
g	Completion certificate reference and date			

Note: a. Tenderer should furnish copy of the above-referred orders (as defined under PQC documents) and

b. Enclose a separate statement if space is not sufficient.

(D) **Annual Turnover (as per Audited Balance Sheet) in following last THREE financial years**

SL No.	Financial Year	Value (Rs. In Lakhs)
1	2018-2019	
2	2019-2020	
3	2020-2021	

Sign & Stamp of Bidder



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Note : Tenderer should furnish copy of audited accounts as proof of turnover (as defined under tender documents).

(E) INCOME TAX DETAILS:

i. Income Tax Returns Filed:

ASSESSMENT YEAR	DATE	ACKNOWLEDGEMENT NO
2018-2019		
2019-2020		
2020-2021		

Note: Tenderer should furnish copy of the Income Tax Return filed.

ii. Income Tax Assessment Orders for following three financial years:

ASSESSMENT YEAR	ASSESSMENT ORDER & DATE	REMARKS
2018-2019		
2019-2020		
2020-2021		

Copies of Income Tax assessment orders / return filed / acknowledgement order for the three years as indicated above.

(F) GST Registration Details:

GST Registration no	
---------------------	--

Note: Tenderer should furnish copies of above Tax Registration Certificates.

Sign & Stamp of Bidder



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(G) Mode of EMD (Online EMD or BG):

i. If paid Online:

AMOUNT	Rs.
(RTGS/NEFT/NET BANKING)	
Transaction Detail	

ii. If Bank Guarantee submitted (following details to be given) :

Name of the Issuing Bank and Branch Address	Bank Guarantee No and Date	BG Amount Rs.	Date of issuance	Valid Upto

(H) Production Capacity Details: (in case of manufacturer)

S. N	Item	Factory/ Location	Installed/ Capacity	Already Committed Capacity (For current Purchase orders in hand)	Spare Capacity, If Any	Capacity Committed to DAFFPL against this tender
			A	B	C=A-B	

Sign & Stamp of Bidder



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Factory License and Address Details:

- (J) In case the bidder is not a manufacturer, the bidder should submit an undertaking on Letter Head that the bidder is capable of supplying the material / equipment as per tender requirement.
- (K) Pan Card Details
- Relation of Pan Holder to Tenderer
(PROP./PARTNER/COMPANY ETC.)
(Tenderer is required to upload copy of PAN card as detailed in "Other Mandatory documents")
- (L) Details of Documents uploaded along with Tender documents in technical bid and confirmation required to be furnished by tenderer.

Sign & Stamp of Bidder



DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

PAYMENT TO VENDORS THROUGH ELECTRONIC MODE

Tenderers are requested to submit their Consent Letter as per the format given below along with the enclosures as required:

Dated :

To,
M/s DAFFPL.

Dear Sir,

With reference to your advice, we hereby agree to accept the payment of our bills through "RTGS/NEFT/Electronic Mode". The desired bank account details are given below:

1.	Name of Beneficiary	
2.	Name of the Beneficiary's Bank	
3.	Address of the Beneficiary's Bank Branch	
4.	Contact details of Branch with STD Code	
5.	Beneficiary's Bank Account No. (as per cheque copy)	
6.	Beneficiary's Account Type (SB/CC/CA)	
7.	Beneficiary's Bank IFSC Code (11 Digit)	
8.	Mobile No of Beneficiary (One Number only)	
9.	E-Mail Id of Beneficiary (One Mail Id only)	

A blank cancelled cheque leaf relating to the above bank account is enclosed for verifying the accuracy of the bank account details.

I hereby declare that the particulars given above are correct and complete.

(Signature of Account Holder)

Seal of the Vendor

Encl : Cancelled Cheque

Sign & Stamp of Bidder

PRICE BID

Name of the Work: DESIGN, FABRICATION, SUPPLY, TESTING AND COMMISSIONING OF PIT CLEANING/QC VEHICLES

Name of Firm:

S No	Particulars	Qty	Units	Unit Rate (Including Taxes) Rs.	Total Amount for 02 Vehicles (Including Taxes) Rs.
1	DESIGN, FABRICATION, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF PIT CLEANING/QC VEHICLES INCLUDING PROCUREMENT OF CHASSIS AS PER SPECIFICATIONS AND SCOPE	2	Nos		0.00

Total Amount for 02 vehicles including taxes in Words mention below :-

Rupees: