ANNEXURE-II

OIL INDIA LIMITED

(A Government of India Enterprise)
P.O. Duliajan-786602, Assam, India
E-mail: material@oilindia.in

INVITATION FOR BID
NATIONAL COMPETITIVE BID

OIL INDIA LIMITED invites National Competitive Bid (NCB) through its e-procurement portal https://etender.srm.oilindia.in/irj/portal for the following items:

E-Tender No.	Bid Closing / Opening Date	Item
SDI5970P18	**07.12.2017**	**FABRICATION, SUPPLY, INSTALLATION &, COMMISSIONING OF MULTI PURPOSE FIRE TENDER – QTY = 02 NOS**
SDI6040P18	**07.12.2017**	**FABRICATION, SUPPLY, INSTALLATION, TRAINING &, COMMISSIONING OF MINIE FIRE TENDER – QTY = 02 NOS**
SDI6043P18	**07.12.2017**	**DESKTOP PC – QTY = 188 NOS**

Tender fee (Non-refundable): Rs 1,000.00 (to **be paid online only**); Bid Closing/Opening Time: **(11 Hrs.) IST/(14 Hrs.) IST**; Period of sale of documents: **Till one week prior to bid closing date**. The complete bid documents and details for purchasing bid documents, participation in E-tenders are available on OIL's e-procurement portal https://etender.srm.oilindia.in/irj/portal as well as OIL's website www.oil-india.com.

NOTE: All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e- portal only and no separate notification shall be issued in the press. Bidders should regularly visit above website and e-portal to keep themselves updated.

OIL INDIA LIMITED
(A Government of India Enterprises)
PO : Duliajan – 786602
Assam (India)

TELEPHONE NO. (91-374) 2808719
FAX NO: (91-374) 2800533
Email: ranjanbarman@oilindia.in ; erp_mm@oilindia.in

FORWARDING LETTER

Tender No.	**: SDI6040P18 DT: 16.10.2017**
Tender Fee	**: Rs 1,000.00**
Bid Security	**: Applicable**
Bidding Type	**: SINGLE STAGE TWO BID SYSTEM**
Tender Type	**: Open Tender**
Bid Closing / Opening on	**: As mentioned in the e-portal**
Performance Security	**: Applicable**
Integrity Pact	**: Applicable**

"The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. However, concessional rate of GST @5% against Essentiality Certificate for invoice value 10 Lakh and above will be applicable.

In the event of order, OIL will issue Project Authority Certificate (PAC), where import content is declared by the bidder for availing Custom Duty benefit on the import content. Supplier shall affect dispatch only on receipt of these certificates from OIL, failing which all related liabilities shall be to Supplier's account".

OIL invites Bids for **SUPPLY, FABRICATION, INSTALLATION & COMMISSIONING OF MINI FIRE TENDER REQUIRED FOR OIL FIRE SERVICE, DULIAJAN.- QTY = 03 NOS** through its e-Procurement site under **SINGLE STAGE TWO BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area - > Tender Documents

The general details of tender can be viewed by opening the RFx [Tender] under RFx and Auctions. The details of items tendered can be found in the Item Data and details uploaded under Technical RFX.

The tender will be governed by:

a) **For technical support on various matters viz. Online registration of vendors, Resetting of Passwords, submission of online bids etc, vendors should contact OIL's ERP MM Deptt at following: Tel Nos = 0374-2807178, 0374-2807171 , 0374-2807192. Email id = erp_mm@oilindia.in.**

b) OIL's office timings are as below:

	Time (in IST)
Monday – Friday	**07.00 AM to 11.00 AM; 12.30 PM to 03.30 PM**
Saturday	**07.00 AM to 11.00 AM**
Sunday and Holidays	**Closed**

Vendors should contact OIL officials at above timings only.

OIL Bank Details :

	Bank Details of Beneficiary	
a	Bank Name	STAE BANK OF INDIA
b	Branch Name	Duliajan
c	Branch Address	Duliajan, Dist-Dibrugarh
d	Banker Account No.	10494832599
e	Type of Account	Current Account
f	IFSC Code	SBIN0002053
g	MICR Code	786002302
h	SWIFT Code	SBININBB479
i	Contact No.	9435554859
j	Contact Person Name	Mr. K.L.K.Banik, AGM
k	Fax No.	0374-2802729
l	Email Id	sbi.02053@sbi.co.in

c) "General Terms & Conditions" for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders.

d) Technical specifications and Quantity as per **Annexure – 1A**.

e) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area - > Tender Documents.

f) Amendments to the NIT after its issue will be published on OIL's website only. Revision, clarification, addendum, corrigendum, time extension etc. to the tender will be hosted on OIL website only. No separate notification shall be issued in the press. Prospective bidders are requested to visit website regularly to keep themselves updated.

g) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).

h) Bidder are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFx -> External Area - > Tender Documents. The above filled up document to be uploaded in the Technical Attachment. For details please refer "Vendor User Manual" / "NEW INSTRUCTIONS"

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1.0 Vendors having OIL's User ID & password may pay Tender Fee on-line through OIL's electronic Payment Gateway upto one week prior to the Bid closing date (or as amended in e-portal).

Vendors who do not have OIL's User ID & password, may generate User ID & password online by the Vendor by using the link for supplier enlistment given in OIL's e-tender portal and then pay Tender Fee on-line through OIL's electronic Payment Gateway upto one week prior to the Bid closing date (or as amended in e-portal).

No physical tender documents will be provided. Details of NIT can be viewed using "Guest Login" provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL's web site www.oil-india.com.

NOTE:
In case of MSE/PSUs/ Govt. Bodies / eligible institutions etc., they shall apply to DGM-Materials, Oil India Limited, P.O. Duliajan, Assam-786602 for waiver of Tender Fee upto one week prior to the Bid closing date (or as amended in e-portal).

2.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidders are required to submit both the "TECHNO-COMMERCIAL UNPRICED BID" and "PRICED BID" through electronic format in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender.

2.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the RFx Information > Technical Attachment only**.** The "**TECHNO-COMMERCIAL UNPRICED BID**" shall contain all techno-commercial details **except the prices**. **Please note that no price details should be uploaded in** Technical RFx Response**.**

2.2 The "**PRICE BID**" must contain the price schedule and the bidder's commercial terms and conditions. **For price upload area , please refer** "NEW INSTRUCTIONS" Please refer Annex-BB for price schedule.

2.3 Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in Annexure-CCC.

3.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **DGM-Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.

a) Original Bid Security
b) Detailed Catalogue (if any)
c) Any other document required to be submitted in original as per tender requirement

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in Duplicate.

4.0 Benefits to Micro & Small Enterprises (MSEs) as per OIL's Public Procurement Policy for Micro and Small Enterprises (MSEs) shall be given. Bidders are requested to go though

ANNEXURE – I of MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders for more details. MSE bidders are exempted from submission of Tender Fees and Bid Security/Earnest Money provided they are registered for the items they intend to quote.

5.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.

6.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.

7.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.

8.0 **SINGLE STAGE TWO BID SYSTEM** shall be followed for this tender and only the PRICED-BIDS of the bidders whose offers are commercially and technically acceptable shall be opened for further evaluation.

9.0 **a) The Integrity Pact is applicable against this tender. Therefore, please submit the Integrity Pact document duly signed along with your quotation as per BRC. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway.**

b) The name of the OIL's Independent External Monitors at present are as under:

i) SHRI RAJIV MATHUR, IPS (Retd.)
Former Director, IB, Govt. of India,
e-Mail ID : rajivmathur23@gmail.com

ii) SHRI SATYANANDA MISHRA, IAS (Retd.)
Former Chief Information Commissioner &
Ex-Secretary, DOPT, Govt. of India
E-Mail ID : satyanandamishra@hotmail.com

iii) SHRI JAGMOHAN GARG
EX-VIGILANCE COMMISSIONER, CVC
E-mail id: jagmohan.garg@gmail.com

10.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or "General Terms & Conditions" as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders elsewhere, those in the BEC / BRC shall prevail.

11.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

12.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

13.0 If Bank Guarantee is submitted towards 'Bid Security', then bidders have to ensure that the Bank Guarantee issuing bank indicate the name and detailed address (including e-mail) of their higher office from where confirmation towards genuineness of the Bank Guarantee can be obtained.

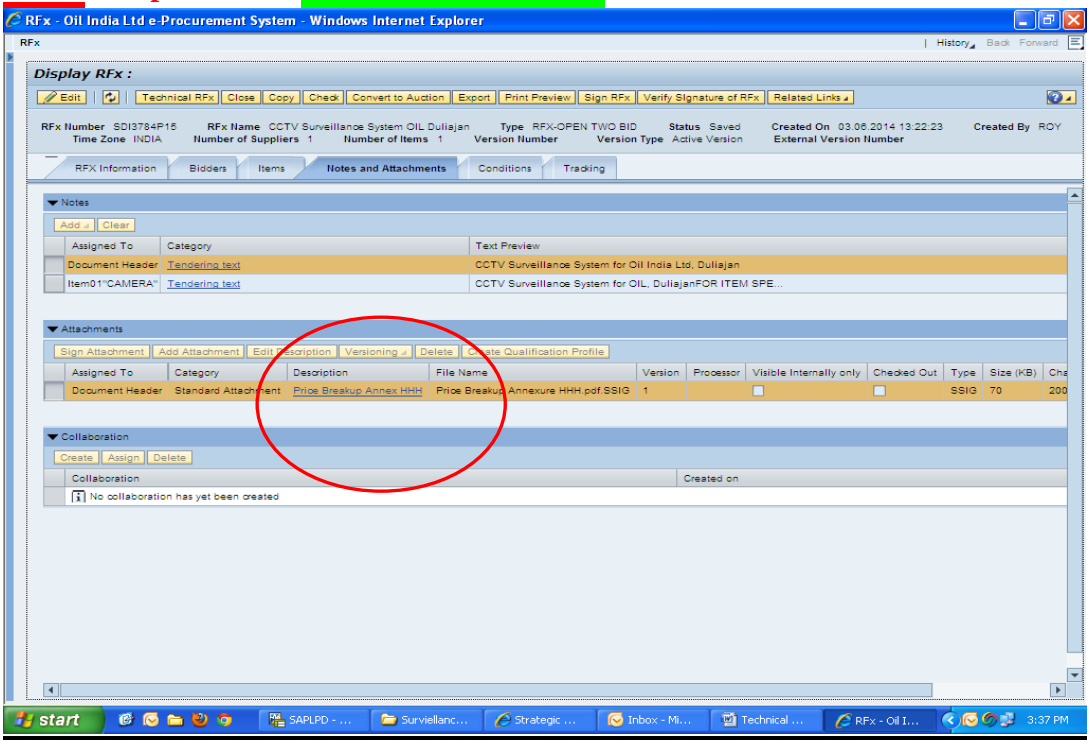
14.0 Delivery/collection Instructions in cases where transportation is in OIL's scope:

(i) the suppliers shall be required to deliver the Sundry consignments of weight less than 3 (Three) Tons at the godown/office/collection point of OIL's authorized transporter in various cities.
(ii) consignments weighing more than 3(Three) Tons shall be collected from the supplier's premises/loading points by OIL's authorized transporter.
(iii) the names of OIL's current authorized transporters are:
a) M/s Western Carriers (India) Ltd.
b) M/s DARCL Logistics Limited

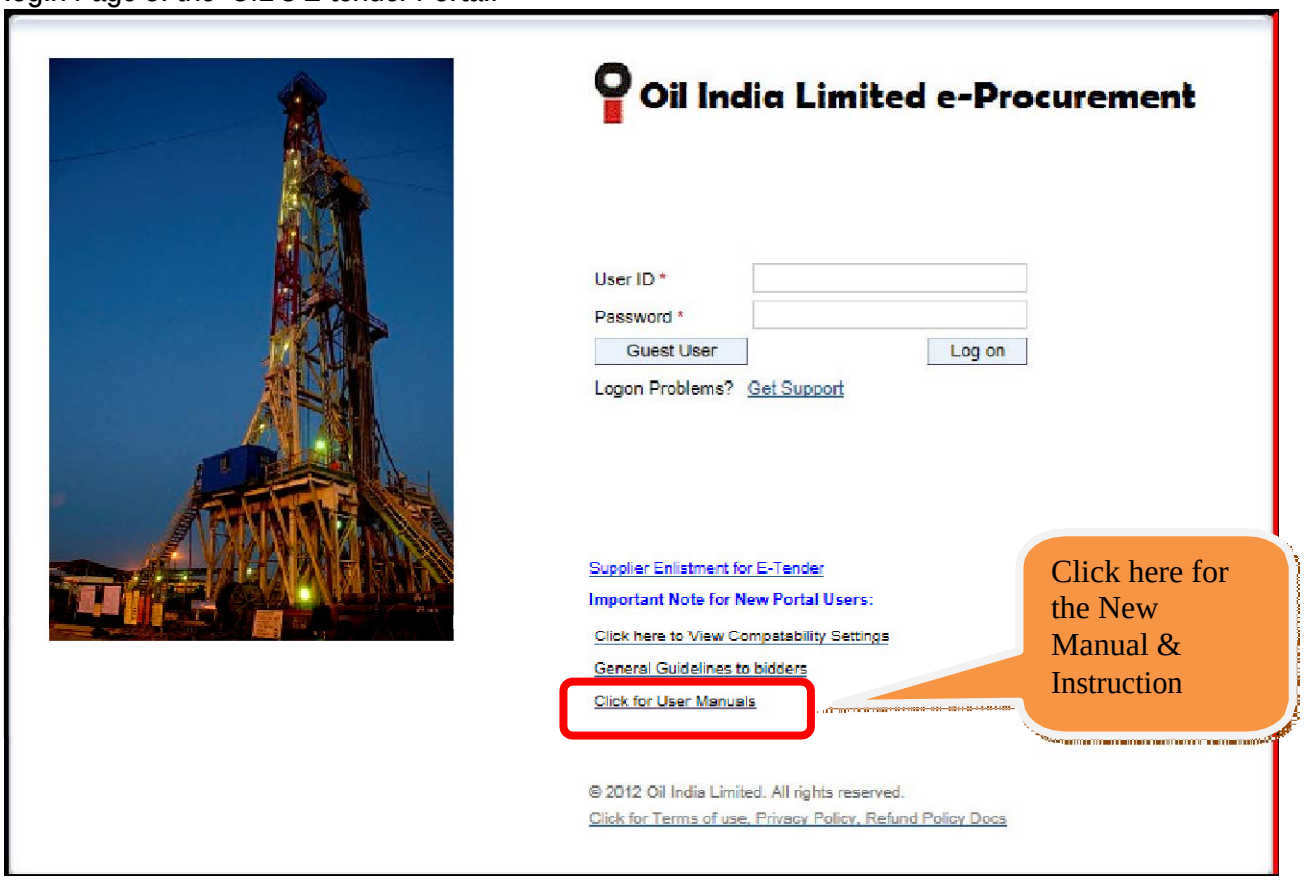
Bidder's are requested to note the above delivery/collection instructions while submitting their offers.

15.0 Price Breakup:

Bidders should submit the price breakup of all the items as per "Annexure HHH" which has been uploaded under "Notes & Attachments" > "Attachments" as shown below. The price breakup "Annexure HHH" should be filled up, signed and uploaded under "Notes & Attachments" > "Attachments" only. **The filled up price breakup of all the items should not be uploaded in Technical Attachment.**



Please do refer "NEW INSTRUCTION TO BIDDER FOR SUBMISSION" for the above two points and also please refer " New Vendor Manual (effective 12.0.2017) " available in the login Page of the OIL's E-tender Portal.



NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

Yours Faithfully

Sd-
(R BARMAN)
SR MANAGER MATERIALS (IP)
FOR : DGM-MATERIALS

Annexure - CCC

Tender No & Date: SDI6040P18 DT: 16.10.2017

BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)

The following BRC/BEC will govern the evaluation of the bids received against this tender. Bids that do not comply with stipulated BRC/BEC in full will be treated as non responsive and such bids shall prima-facie be rejected. Bid evaluation will be done only for those bids that pass through the "Bid Rejection Criteria" as stipulated in this document.

Other terms and conditions of the enquiry shall be as per General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BRC / BEC) contradict the Clauses of the tender or MM/LOCAL/E-01/2005 elsewhere, those in the BRC / BEC shall prevail.

Criteria	**Complied / Not Complied. (Remarks if any)**
1.0 BID REJECTION CRITERIA (BRC): The bid shall conform generally to the specifications, terms and conditions given in this document. Notwithstanding the general conformity of the bids to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected. **A) TECHNICAL** 1. The Bidder shall have experience of manufacturing/ fabricating / assembling and supply of Fire Tenders (on minimum 09 tonne Chassis) in previous 5 (five) years from the original stipulated bid closing date of the tender. In this regard, the bidder should submit the following documents:- a. Copy of Certificate specifying the nature of business of the firm shall be furnished along with the bid. b. In this regard, the bidder should submit the copy of Purchase Order(s) and Proof of Supply/ Commissioning Report(s)/ Performance Report(s) along with bid. 2. The bidder shall have the manufacturing /fabricating / assembling facilities and adequate testing /quality assurance facilities of Fire Tenders. In this regard, the bidder should submit the list of the necessary machinery / equipment for manufacturing/ fabricating / assembling & testing of Fire Tenders along with bid. 3. The bidder shall have Experience of manufacturing/ fabricating / assembling and successful execution of supply of at least 1 (one) similar	

Order in preceding 5(five) years from the original stipulated bid closing date of the tender.

In this regard, the bidder should submit the copy of Purchase Order(s) and Proof of Supply/ Commissioning Report(s)/ Performance Report(s) along with bid.

Similar Order means:-

Supply of at least 02 (Two) No. Fire Water/ Foam Tender with pump capacity of minimum 150 LPM at 100 KG/CM2 (bar) pressure on minimum 09 tonne Chassis.

B) FINANCIAL:

a) Annual Financial Turnover of the bidder during any of preceding 03 (three) financial / accounting years from the original bid closing date should be at least **Rs. 95.52 Lakhs.**

b) Net Worth of the firm should be Positive for preceding Financial / Accounting year (FY=2016-17).

C) COMMERCIAL:

i) Validity of the bid shall be minimum 120 days from the Bid Closing Date.

ii) Bid security:
The bid must be accompanied by Bid Security of **Rs 3,82,000.00** in OIL's prescribed format as Bank Guarantee in favour of OIL. The Bid Security may be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. **The Bank Guarantee towards Bid Security shall be valid for 7 months from Bid closing date. (i.e. upto 07.07.2018)**

Bid Security may also be paid online on or before the Bid Closing Date and Time mentioned in the Tender.

If bid security in ORIGINAL of above mentioned Amount and Validity is not received or paid online within bid closing date and time, the bid submitted through electronic form will be rejected without any further consideration.

For exemption for submission of Bid Security, please refer Clause No. 8.16 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders.

The format of Bank Guarantee towards Bid Security (Annexure – VII) has been amended to Annexure – VII (Revised) and bidders should submit Bank Guarantee towards Bid Security as per Annexure – VII

(Revised) only.

iii) Bids are invited under "Single Stage Two Bid System". Bidders have to submit both the "Techno-commercial Unpriced Bids" and "Priced Bids" through electronic form in the OIL's e-Tender portal within the bid Closing date and time stipulated in the e-tender. The Techno-commercial Unpriced bid is to be submitted as per scope of works and Technical specification of the tender and the priced bid as per the online Commercial bid format. For details of submission procedure, please refer relevant para of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. Any offer not complying with the above shall be rejected straightway.

iv) Performance Security:

The successful bidder shall submit Performance Security @ 10% of PO value within 30 days of receipt of the formal purchase order failing which OIL reserves the right to cancel the order and forfeit the Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above.

The Performance Security shall be in any one of the following forms :

A Bank Guarantee in the prescribed OIL's format valid for 3(three) months beyond the Warranty period indicated in the Purchase Order /contract agreement.

The Performance Security for capital nature items like plant and machinery etc. shall be valid for 12 months from the date of commissioning plus 3(three) months or 18 months from the date of shipment/despatch plus 3(three) months whichever concludes earlier. However, for consumables like chemicals, cement, tubular etc. the Performance Security shall be valid for 12 months from the date of shipment/despatch plus 3(three) months.

The validity requirement of Performance Security is assuming despatch within stipulated delivery period and confirmation to all terms and conditions of order. In case of any delay in despatch or non-confirmation to all terms and conditions of order, validity of the Performance Security is to be extended suitably as advised by OIL.

v) The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

vi) Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.

vii) All the Bids must be Digitally Signed using "Class 3" digital certificate with Organisation's name *(e-commerce application)* as per Indian IT Act

obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than "Class 3 with Organisation's Name" digital certificate, will be rejected.

viii) Technical RFx Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFx Response folder, otherwise the offer will be rejected.

ix) Price should be maintained in the "online price schedule" only. The price submitted other than the "online price schedule" shall not be considered.

x). Integrity Pact :

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway.

xi). A bid shall be rejected straightway if it does not conform to any one of the following clauses:
(a) Validity of bid shorter than the validity indicated in the Tender.
(b) Original Bid Security not received within the stipulated date & time mentioned in the Tender.
(c) Bid Security with (i) Validity shorter than the validity indicated in Tender and/or (ii) Bid Security amount lesser than the amount indicated in the Tender.
(d) In case the Party refuses to sign Integrity Pact.
(e) Annual Turnover of a bidder lower than the Annual turnover mentioned in the Tender.

XII. DELIVERY.
FOR MATERIALS: MAXIMUM ALLOWABLE DELIVERY PERIOD 30 WEEKS AFTER RECEIPT OF PO.
FOR INSTALLATION: MAXIMUM 03 WEEKS FROM THE DATE OF SIGHT CLEARENCE.

NOTE: FOR CLAUSE NOS. C(ii) & C(iv) OF BID SECURITY/EMD AND PBG
The bidders/successful bidders are requested to advise the Bank Guarantee issuing bank to comply with the following and ensure to submit, the receipt of the copy of SFMS message as sent by the issuing bank branch, along with the original bank guarantee in Oil's tender issuing office:

The bank guarantee issued by the bank must be routed through SFMS platform as per following details:
(i) "MT 760 / MT 760 COV for issuance of bank guarantee.
(ii) "MT 760 / MT 767 COV for amendment of bank guarantee
The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code - UTIB0001129, Branch Address - AXIS Bank Ltd, Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, District - Dibrugarh, PIN- 786602

2.0 BID EVALUATION CRITERIA (BEC)

The bids conforming to the terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria as well as verification of original of any or all documents/ documentary evidences pertaining to BRC, will be considered for further evaluation as per the Bid Evaluation Criteria given below.

A) TECHNICAL:
1. The manufactured product should be strictly as per OIL's tender specification.

B) COMMERCIAL:
i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.

ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid".

iii) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.

iv) To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

NOTE:
Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

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ANNEXURE-IA

TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No & Date: SDI6040P18 DT: 16.10.2017

	Complied / Not Complied. (Remarks if any)
ITEM NO. 10 **CHASSIS FOR MINI FIRE TENDER AS PER DETAILS PART "A" (ANNEXURE-I) IS ATTACHED – QTY = 03 NOS**	
ITEM NO. 20 **FABRICATION OF MINI FIRE TENDER AS PER DETAILS PART "B" (ANNEXURE-I) IS ATTACHED HEREWITH - QTY = 03 NOS**	
ITEM NO. 30 **INSTALLATION AND COMMISSIONING – QTY = 01 AU.** **INSTALLATION AND COMMISSIONING OF "MINI FIRE TENDER" AT FIRE SERVICE,DULIAJAN, ASSAM BY THE SUPPLIER'S REPRESENTATIVE** **1AU MEANS INSTALLATION AND COMMISSIONING OF ALL 03 NOS OF MINI FIRE TENDERS.**	

NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

Annexure-I

PART – "A" CHASSIS FOR "MINI FIRE TENDER"

Brand new 4x2 drive ~~Truck~~ chassis of TATA (Ultra Series)/ Ashok Leyland (Boss Series) make manufactured not prior to six months from the date of issuance of Letter of Intent (LOI)/ LOA. The bidder shall take special care in selecting and designing the Mini Fire Tender considering the unit's application in rough terrain and typical oilfield roads. The offered model shall be latest and conforming to international quality standard norms, having specifications, fittings, accessories, etc. as under:

1. CHASSIS:

a	Drive	4 x 2 Drive
b	Engine	Min. 4 cylinder Water-cooled diesel engine.
c	Max. Output Power	Not less than 125 BHP at rated rpm.
d	Max. Output Torque	Not less than 400 NM at rated rpm.
e	Emission	Minimum Euro IV or BS IV
f	Steering	Hydraulic Power Assisted Steering (Right Hand Steering).
g	Gearbox	Minimum 5 forward speed & 1 reverse speed.
h	PTO for the pump	Power take –off (PTO) unit for the pump shall be independent type VAS/ Firefly of suitable model only. The PTO operation shall be through Pneumatic as well as mechanical cable linkage.
i	Wheelbase	In the range of 3100 mm. to 3500 mm.
j	GVW	Not less than 9600 Kg.
k	Brake	Full air or Hydraulic power assisted Brake and suitable Parking Brake.
l	Axles	Front - 1, Rear – 1 (Drive axle).
m	Suspension	Semi elliptical leaf spring suspension.
n	Wheels & Tyres	Front- 2, Rear - 4 & Spare - 1, Tyre .Size - preferably 7.5 x 16 or 8.25 x 20 of adequate ply rating
o	Cab Seating Capacity	1+2

2. DRIVER'S CABIN:

Suitable factory built cab for Mini Fire tender.

3. DIMENSIONS:

Full Unit:

Overall Length - Approx. 5500 mm.
Max. Width – Approx. 2100 mm.
Max. Height - Not more than 3000 mm (Unladen).

4. ADDITIONAL/OTHER FITMENTS & ACCESSORIES:

a. All standard gauges and meters, Horn, Reversing Alarm, Lightings, Reflectors, Roof Lamps, Windscreen wipers, Sun shade, Glove box, Lockable fuel tank, Standard Tool Kit, Suitable Capacity Hydraulic Jack with handle & wheel wrench, Mud flaps/guards, etc.
b. Rear View Mirror- 2 Nos.
c. Well-covered Battery Box, Tool box. Suitable storage box at suitable location.
d. Suitable Jaw & Pint type rear Towing Hook, mounting arrangement for spare wheel.
e. First Aid Box, Fire Extinguisher, Licence Holder at suitable locations and other fittings required as per MV Act.

5. DOCUMENTATION:

A. The following documents/literatures are to be submitted along with the bid:

a. Technical leaflet, to support the specifications provided in the bid. (All specifications, as desired, as well as Make, MODEL, CODE, Type of the offered Fire Tender Chassis shall clearly be defined in the bid. Submission of Technical Leaflet is not sufficient).

b. A detailed Dimensional Drawing of the fire tender, showing among others overhang, seat size, leg space & sitting arrangement etc. as applicable.

B. The following documents /literatures are to be submitted along with the supply:

a. Temporary Registration, Insurance, Road Tax, Invoice, Sale Letter in Form 21 & 22/22(A), etc. in the name of M/s OIL INDIA LIMITED, Duliajan, Assam as required under MV act for onward registration of the fire tender in Assam.

b. Checklist as per enclosed format **(CHECKLIST FOR THE FIRE TENDER CHASSIS)** shall be furnished along with the bid. In case of any contradicting specification provided elsewhere in the bid, **the specification provided in the said checklist shall be considered for the bid evaluation.**

6. TECHNICAL CHECK LIST:

Part A TECHNICAL A 1.1 (FIRE TENDER CHASIS)							
Sl. No.	PARAMETERS / REQUIREMENTS					BIDDER'S OFFER (To indicate details or yes/no, as applicable)	REMARKS, IF ANY
1	Make & Model of Fire Tender Chassis						
2	Gross Vehicle Weight (GVWR)						
3	Drive:						
4	Wheelbase:						
5	Overall Dimensions (Width, Height & Length) of complete unit:						
6	Ground Clearance:						
7	Laden Weight (Total weight of the unit)						
8	Engine	a	Make & Model				
		b	Max. Output Power				
		c	Max. Output Torque				
		d	Naturally Aspirated or Turbo Charged				
		e	Emission Norms				
		f	Control System (Electronic)				
9	Transmission (Main)	a	Make & Model				
		b	No. of gears				
10	Make & Model of Transfer Case, if any						
11	Total number of PTOs in operation						
12	Make & Model of PTO						
13	Make, Model & Type of Steering System						
14	Minimum Turning Circle Radius (MTCR)						
15	Type of Front Suspension						
16	Type of Rear Suspension						
17	Axle Capacity			a	Front		
				b	Rear		
18	Type, Size of Wheel & Tyre			a	Front		
				b	Rear		
19	Type of Service Brake (S/Z-cam or not)						
20	Type of Wheel Brake			a	Front		

	Servos(screw type manual release or not)	b	Rear		
21	Fuel Tank capacity				
22	Reversing Alarm with Blinker Lights				
23	Provision of Air Dryer in truck's pneumatic system.				

Part B DOCUMENTATIONS
B1.1 FIRE TENDER

Sl. No.	DESCRIPTIONS	DOCUMENT ENCLOSED (Yes or No)	REMARKS, IF ANY
1	Technical leaflets with detailed specifications, Make & Model of chassis, engine, transmission, transfer case (if any), PTOs, suspension, axle, steering, wheel & rim, brake, etc.		
2	Detailed dimensional layout drawing illustrating Driver's Cabin and all major items/ components.		
3	List of tools that shall be supplied under Standard Tool Kit for general maintenance of the fire tender.		
4.	Checklist for fire tender as per enclosed format.		

7. WARRANTY/GUARANTEE:

Notwithstanding the Guarantee/Warranty clause(s) mentioned elsewhere in the NIT, complete units shall be under guarantee/warranty by the supplier for a minimum period of 1(one) year from the date of successful commissioning at site.

OIL reserves the right to inspect, test and if necessary, reject the truck or any part/parts after delivery at site, only if the said rejection is attributed to be the responsibility of the supplier. It shall, in no way be limited or waived by the reason that the fire tender was being previously inspected, tested and passed by OIL.

8. DEVIATIONS FROM THE SPECIFICATIONS:

The bidder shall enclose comprehensive list of intended deviations from the technical specifications, of any clearly highlighting the reasons thereof, along with the bid. Deviations from the Technical specifications are intended, the same shall be confirmed in the offer. However, OIL reserves the right for acceptance or rejection of the deviation(s).

Annexure-I

PART – B FABRICATION OF "MINI FIRE TENDER" WITH ACCESSORIES

1.0 SCOPE :

1.1 This specification covers the requirements regarding design, procurement, fabrication, testing and supply of "Mini Fire Tender" to be used for firefighting. The scope of supply shall be inclusive of, but not limited to the following.

1.1.1 Chassis
1.1.2 Plunger Pump of **400** LPM at **100** bar pressure
1.1.3 Power take-off unit for driving Plunger Pump
1.1.4 Water tank of capacity **3000** Litres capacity
1.1.5 Foam tank of capacity **500** Litres capacity
1.1.6 Body Fabrication/ Work
1.1.7 Control Panel
1.1.8 Accessories and spares
1.1.9 Piping, necessary controls etc.

1.2 The chassis for the "**MINI FIRE TENDER**" shall be procured & supplied by the vendor. The vendor shall be responsible for supplying all equipment / accessories and properly fixing them on the chassis as described in this specification. Other details and requirements which are not covered under this specification, but may be necessary to complete the **"MINI FIRE TENDER"** and/or to fulfill the operation/performance requirement shall be provided by the vendor, who will be responsible for the design and construction of the complete appliance to the full satisfaction of the owner.

2.0 GENERAL REQUIREMENTS:

2.1 The **"MINI FIRE TENDER"** including all accessories shall be designed, manufactured, tested etc. as per relevant Indian, International Standards, wherever applicable and as per sound engineering practice.

2.2 All the equipment and accessories shall be fixed on the appliance in a compact and neat manner and shall be so placed that each part is easily and readily accessible for use and maintenance. The centre of gravity shall be kept as low as possible.

2.3 The controls on control panel shall be so arranged that one man can operate all the controls.

2.4 The vendor shall provide a detailed description of the "MINI FIRE TENDER", a list of equipment to be furnished, and other construction and performance details to which the "MINI FIRE TENDER" shall conform.

2.5 The detailed description of the **"MINI FIRE TENDER"** shall include, but shall not be limited to, estimated weight, wheelbase, turning clearance radius, principal dimensions, transmission, and axle ratios.

2.6 Responsibility for the "**MINI FIRE TENDER**" and equipment shall remain with the vendor until they are accepted by the OIL.

2.7 On initial delivery of the "**MINI FIRE TENDER**", the vendor shall supply a qualified representative to demonstrate the "**MINI FIRE TENDER**" and provide initial instructions to representatives of the OIL regarding the operation, care, and maintenance of the "**MINI FIRE TENDER**" and equipment supplied.

2.8 **INSPECTION & TESTING :**

2.8.1 The testing shall be carried out by the Third Party Inspection Agency in presence of OIL's Engineer(s).

2.8.2 The scope of the inspection is as mentioned below :-

Stage	Scope of Inspection (But not limited to)
First stage	Chassis & Materials Inspection (At chassis Manufacture's / Dealer's primisis): The successful bidder shall facilitate for inspection of the Chassis & other materials to be used for fabrication of the MINI FIRE TENDER. (i) Chassis Identification & physical verification of chassis No., engine No. etc. (ii) Verification of all document related to chassis procurement. (iii) Verification of all Documents related to Quality of material of tank. (iv) Thickness measurement of Tanks plates and distinct marking of each material by ultrasonic thickness gauge. (v) Physical Identification of material of Tanks, Super structure, under structure etc. (vi) Physical Identification of Components / sub-assemblies identification, before fabrication. (vii) Cutting & marking of material sample for laboratory test (Chemical & Physical). (viii) Verification of all manufacturers/ fabricators document including documents of imported items. (ix) Calibration checking and documents of testing instruments, gauges, tools, accessories etc. (x) Identify the Position of Tanks on the chassis.
Second stage	**<u>After completion of under structure:</u>** (i) Hydro testing of Tanks. (ii) Dye penetration test of all weld joints of Tanks. (iii) Verification of laboratory test (Chemical & Physical) material Test Certificates (MTC) (iv) Positive Material Identification (PMI) of material (v) Construction of under- structure & super structure (vi) Placing of Water tank & Foam Tank. (vii) Documents related to Quality of material of tanks and thickness of tank's plates, radiography inspection report (viii) Dimensions check of under structure on chassis, fabricated components as per specifications & approved drawings. (ix) Location for Placement of tank, fittings, lockers, pump, quality of fabrication. (x) Calibration checking of testing instruments, gauges, tools, accessories etc.
Final stage	**<u>After completion of final painting</u>:** (i) Review of observations of First & Second stage inspections. (ii) Stability checking of the unit after mounting all equipment and accessories. It should be free from undue rattling and vibration. (iii) Check proper functioning of all types of signal lights, alarms, Bell etc. (iv) Check quality of workmanship. (v) Check calibration of instruments, gauges, tools, accessories etc. (vi) Check operation of various levers, locks, caps, fitment of tanks, linkages, Markings and plumbing work. (vii) Performance test of all the systems, Pumps, Primer, PTOs, load & stability test of **MINI FIRE TENDER**, (viii) Testing of equipment / tools & Unit (ix) Checking of all relevant documents etc. (x) Checking of all relevant accessories/ Spares.

2.8.3 **Endurance Test:** The pump will be tested for a continuous period of four hours & water will not be replenished during this test, engine will not show signs of overheating. During this test, the temperature of engine should not exceed the rated temperature and that of lubricating oil 79^{o}C.

2.8.4 **Articulation Test:** The vehicles shall be tested for articulation & will not show any signs of stress during this test. The clearance in the wheel wells will be checked for tolerances.

2.8.5 **Hydraulic Testing**: All the UHP piping will be subjected to hydraulic test pressure of 150 Kg/cm2 for a period of 2 hrs.

2.8.6 **Shower Test:** After completion of the fabrication, the vehicle will be subjected to shower test as per the norms laid down under BIS. The appliance will not show any signs of leakages during this test.

2.8.7 **Road Test:** Vehicle will be tested for braking, acceleration & top speed by the inspecting officers.

2.8.8 Using the information supplied by the OIL, the "MINI FIRE TENDER" manufacturer shall calculate the load distribution for the "MINI FIRE TENDER".

2.8.9 The manufacturer shall engineer the "MINI FIRE TENDER" to comply with the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR), and the chassis manufacturer's load balance guidelines.

2.8.10 All consumable (e.g. diesel fuel, engine lube oil, water etc.) shall be arranged by vendor at his own cost. Vendor shall arrange all facilities to carry out inspection & testing.

2.8.11 OIL representatives shall have access at all reasonable times to vendor's works where the appliance or its accessories are being fabricated and tested.

2.8.12 Drawings (i.e. Skelton Structure, Water & Foam Tanks drawing, General layout drawing, Load distribution chart, Electric circuit diagram etc.) & Quality assurance Plan (QAP) shall be approved by the Oil India Ltd. No supply shall be accepted unless drawings & Quality assurance Plan (QAP) are finally approved by the Oil India Ltd.

2.8.13 The Inspection shall be carryout based on approved drawings & approved QAP.

2.8.14 **FOR TANKS:**

2.8.14.1 Review of mill test certificates and Co-relation of raw materials before start of fabrication.

2.8.14.2 DP test of all welds of water & Foam tanks.

2.8.14.3 DP test of all nozzles to shell (reinforcement pads) for water & Foam tanks.

2.8.14.4 Visual and dimensional check of water & Foam tanks before mounting on chassis.

2.8.14.5 Hydraulic test of completed water & Foam tanks.

2.8.14.6 Hydraulic test shall be carried out at 0.5 KG/CM2 (G) at top of tanks. Pressure shall be held for the duration to permit complete inspection.

2.8.15 **FOR PIPING:**

2.8.15.1 Review of mill test certificates and co-relation of raw materials (for pipes, fittings, valves etc) before start of fabrication.

2.8.15.2 DP test of butt welds and final run.

2.8.15.3 DP test of all flanges to pipe welds.

2.8.15.4 Radiographic examination of 10% butt welds (selected at random).

2.8.15.5 Hydraulic test of piping installation on chassis.

2.8.15.6 Visual and dimensional check.

2.8.16 **FOR WATER PUMP (Main):**

2.8.16.1 Review of mill test certificates for material of casing, impeller and shaft.

2.8.16.2 Hydraulic testing of casing.

2.8.16.3 Performance testing of pump to establish the performance curve at rated speed and power absorbed at rated conditions. Parameters at maximum & minimum allowable speeds shall be evaluated to establish performance curves at these speeds.

2.8.17 **FOR HI. PRESSURE PUMP :** All standard tests as specified by the Pump supplier.

2.8.18 **FOR PTO UNITS :** All standard tests as specified by the PTO supplier.

2.8.19 **FOR "MINI FIRE TENDER" (DURING FABRICATION & ASSEMBLY):**

2.8.19.1 Review of mill test certificates and co-relation of raw materials used for structure & body fabrication before start of fabrication.

2.8.19.2 Inspection of framework for soundness of welding and fitment of chassis and dimensional check.

2.8.19.3 Inspection for proper installation of pumps, tanks, piping with supports and their dimensional checks.

2.8.19.4 Visual inspection of raw materials for framework, cladding, flooring etc.

2.8.20 **FOR COMPLETED VEHICLE :**

2.8.20.1 Determination of actual payload on the chassis so as to confirm payload given by vendor in the bid. For determining actual payload all tanks shall be full, all removable accessories will be on vehicle with a crew of three.

2.8.20.2 Dimensional check of completed vehicle. The overall height shall be measured both when vehicle is laden with full payload and un-laden.

2.8.20.3 Test to confirm functional capability of the "MINI FIRE TENDER" shall be carried out:

2.8.20.3.1 Running of water pump at rated conditions while discharging water through various outlets individually and in combination.

2.8.20.3.2 Functional testing of each water outlet (hose point / hose reel) individually and in combination.

2.8.20.3.3 Functional testing of each hose outlet individually and in combination.

2.8.20.3.4 Vibrations at rotary parts.

2.9 **Personnel Protection :**

2.9.1 Electrical insulation or isolation shall be provided where necessary in order to prevent electrical shock from onboard electrical systems.

2.9.2 Vehicular workmanship shall ensure an operating environment free of accessible sharp projections and edges.

2.9.3 Safety-related (caution, warning, danger) signs shall meet the requirements of job.

2.10 **Controls and Instructions :**

2.10.1 Illumination shall be provided for controls, switches, instruction plates, gauges, and instruments necessary for the operation of the "MINI FIRE TENDER" and the equipment provided on it.

2.10.2 All required signs, plates, and labels shall be permanent in nature and securely attached

2.10.3 No gauge or visual display shall be more than 84 in. (2.1 m) above the level where the operator stands to read the instrument.

2.11 **Load Distribution :**

2.11.1 Using the information supplied by the OIL, the "MINI FIRE TENDER" manufacturer shall calculate the load distribution for the "MINI FIRE TENDER".

2.11.2 When the "MINI FIRE TENDER" is loaded to its maximum in-service weight, the front-to-rear weight distribution of the "MINI FIRE TENDER" as defined shall be within the limits set by the chassis manufacturer.

2.11.3 The manufacturer shall engineer the "MINI FIRE TENDER" to comply with the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR), and the chassis manufacturer's load balance guidelines.

2.11.4 The axle loads shall not be more than the axle loads specified by the chassis manufacturer under full load and all other loading conditions.

2.11.5 **The total laden weight of the unit should not exceed the permissible GVW of Unit.**

2.12 INFORMATION / DOCUMENTS REQUIRED FROM VENDOR :

2.12.1 Any documentation provided with the MINI FIRE TENDER shall be permitted to be in printed format and electronic soft format.

2.12.2 All drawings & literature shall be kept in Proper folders.

2.12.3 All literature shall be on A-4 size paper.

2.12.4 Each drawing shall be kept in separate pockets in folder.

2.12.5 The bidder shall provide regularly fortnightly progress report of Mini Fire Tender through e-mail & photographs after placement & acceptance of Purchase Order.

2.12.6 **AFTER PLACEMENT OF ORDER :**

The following documents are required to be submitted in 2 sets and to be approved prior to start of fabrication**:**

2.12.6.1 Flow diagram showing all piping tanks, pumps, valves etc.

2.12.6.2 GA & cross sectional drawings, characteristic curves and other details for water pump.

2.12.6.3 Internal Drawings for PTO Unit and other technical details.

2.12.6.4 Drawings for PTO system to drive pumps from engine.

2.12.6.5 Fabrication drawings & data for water tanks.

2.12.6.6 Line diagram for electrical circuits.

2.12.6.7 Drawings showing layout of all equipment, lockers, cabin etc.

2.12.6.8 QAP incorporating the stipulated inspection and testing requirements.

2.12.7 **AFTER COMPLETION OF ORDER (4 SETS) :**

The manufacturer's record of MINI FIRE TENDER construction details, including the following Information:

2.12.7.1 Owner's name and address (Oil India Ltd., Duliajan, Dibrugarh , Assam.)

2.12.7.2 Purchase Order No. & Date

2.12.7.3 MINI FIRE TENDER manufacturer, model, and serial number

2.12.7.4 Chassis make, model, and serial number.

2.12.7.5 GAWR (Gross Axle Weight Rating) of front and rear axles.

2.12.7.6 Front tire size and total rated capacity in pounds (or kilograms)

2.12.7.7 Rear tire size and total rated capacity in pounds (or kilograms)

2.12.7.8 Chassis weight distribution in pounds (or kilograms) with water & manufacturer mounted equipment (front and rear)

2.12.7.9 Engine make, model, serial number, rated horsepower and related speed, and governed speed

2.12.7.10 Fuel tank capacity

2.12.7.11 Battery make, model, and capacity in cold cranking amps (CCA)

2.12.7.12 Chassis transmission make, model, and serial number

2.12.7.13 Chassis transmission PTO(s) make, model, and gear ratio

2.12.7.14 Pump make, model, rated capacity in liters per minute and serial number

2.12.7.15 Water & Foam tanks certified capacity in liters.

2.12.7.16 Paint manufacturer and paint shed number(s)

2.12.7.17 As built drawings of MINI FIRE TENDER

2.12.7.18 As built drawings for tanks.

2.12.7.19 Flow diagram.

2.12.7.20 GA & cross sectional drawings, characteristic curves and other details for water pump.

2.12.7.21 As built Drawings for Installation of PTO Units.

2.12.7.22 As built Line diagram for electrical circuits.

2.12.7.23 All inspection and testing records for tank, pump, PTO’s, piping, valves etc.

2.12.7.24 Operating and instruction manual for the MINI FIRE TENDER. This should also contain adequate information for all bought out items also.

2.12.7.25 Fire pump manufacturer's certification of suction capability

2.12.7.26 Fire pump, the pump manufacturer's certification of the hydrostatic test

2.12.7.27 Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall "MINI FIRE TENDER" (with the water full but without personnel, equipment, and hose).

2.12.7.28 Operations and Service Documentation :

2.12.7.28.1 The vendor shall supply operation and service documentation covering the completed MINI FIRE TENDER as delivered and accepted.

2.12.7.28.2 The documentation shall address at least the inspection, service, and operations of the "MINI FIRE TENDER" and all major components thereof.

3.0 MINI FIRE TENDER EQUIPMENT:

3.1 **Equipment Storage :**Enclosed weather-resistant compartmentation meeting the requirements for the storage of equipment.

3.2 **Hose Storage :**Enclosed weather-resistant Hose Storage meeting the requirements for the storage of 02 Nos. UHP Hoses and 15 & 22.5 Mtrs. Hoses.

3.3 **Minor Equipment:** Brackets or compartments shall be furnished so as to organize and mount the specified equipment. **Following equipment shall be supplied along with Mini Fire Tender:**

3.3.1 One first aid kit

3.3.2 Two hydrant wrench

3.3.3 Double female adapter, sized to fit 2½ in. (65 mm) conforming to IS-901/1993- 1 Nos. (In locker)

3.3.4 Double male adapter, sized to fit 2½ in. (65 mm) conforming to IS-901/1993- 1 Nos. (In locker)

3.3.5 Four Nos. wheel chocks with chain link, mounted in readily accessible locations, each designed to hold the MINI FIRE TENDER.

3.3.6 Strong Reversing siren connected with reverse gear of the vehicle-1 set

3.3.7 All tools required for normal / routine maintenance of the appliance, which are not included with the kit of chassis -1 Set (In tool box under rear seat in cabin).

3.3.8 PESO/CCE approved removable spark arrestor (If chassis manufacturer not provided) fitted to the exhaust of the engine - 1 No.

3.3.9 Lightweight PVC rubber suction hose fitted with round thread male-female gun metal couplings. Length - 2 meter, Diameter: 100 MM - 2 Nos. (In compartment on top deck, Compartment shall be open able from top)

3.3.10 Suction strainer with foot valve size to suit suction hose as per IS: 907-1984 - 1 Nos. (In locker)

3.3.11 Low Level Suction strainer - 1 Nos. (In locker)

3.3.12 Suction Wrench to tighten suction hose as per IS:4643- 04 Nos. (In locker)

3.3.13 Crow bar (IS: 704-1984)- 1 No. (In locker)

3.3.14 Ceiling Fire hook as per IS:927:1981-2007 or latest - 02 No.

3.3.15 Carpenter saw-01 No.

3.3.16 Suction adopter (Stainless Steel) 4 inch round threaded by 63 mm instantaneous male coupling -02 Nos.

4.0 CHASSIS AND VEHICLE COMPONENTS :

4.1 Welding and drilling on frame work of chassis are not allowed.

4.2 **POWER TAKE OFF UNIT**:

4.2.1 Power take-off (PTO) unit for the plunger pump shall be independent type (of make VAS/ Firefly only)

4.2.2 A full torque drive line PTO shall be installed for operating the plunger pump.
4.2.3 The PTO shall be able to meet performance requirement of pump.
4.2.4 This PTO shall be of a proper gear ratio to drive the pump at required RPM without loss of power & prevent the engine from overheating.
4.2.5 Vendor shall submit a sketch showing the arrangement of PTO Unit for taking power from main engine on chassis to pump.
4.2.6 The drive assembly components (shaft, coupling etc) shall be dynamically balanced and the vibration at any of the rotary parts shall be minimum and in no case shall be more than 10 mm/sec. Necessary modifications, to the standard drive system as available on the chassis, shall have to be done by the vendor so as to adopt the PTO Units in the system.
4.2.7 The PTO operation shall be pneumatic type with manual override.
4.2.8 A cooling system shall be provided (if required) to maintain temperature of the PTO.

4.3 **FOR OTHER WORK ON CHASSIS :**

4.3.1 Dunlop/3M make anti-vibration rubber mats shall be provided while mounting the tanks etc. on the chassis.
4.3.2 A reflective stripe(s) shall be affixed to the perimeter of the apparatus. The stripe or combination of stripes shall be a minimum of 4 in. (100 mm) in total width and shall conform to the minimum requirements of ASTM D 4956, Standard Specification for Retro reflective Sheeting for Traffic Control, Type I, Class 1 or Class 3. At least 50 percent of the cab and body length on each side, at least 50 percent of the width of the rear, and at least 25 percent of the width of the front of the apparatus shall have the reflective material affixed to it.
4.3.3 Arrangement shall be made on Dashboard opposite to the fire officers' seat to fix a Motorola mobile wireless set of 25W capacity. Power supply shall be provided from vehicle battery. The owner shall fit wireless set later.

4.4 **Optical Warning Devices :**

4.4.1 MINI FIRE TENDER shall have a system of optical warning devices
4.4.2 The optical warning system shall consist of an upper and a lower warning level.
4.4.3 The four zones shall be designated A, B, C, and D in a clockwise direction with zone A to the front of the MINI FIRE TENDER in accordance with Figure 4.8.3.2.

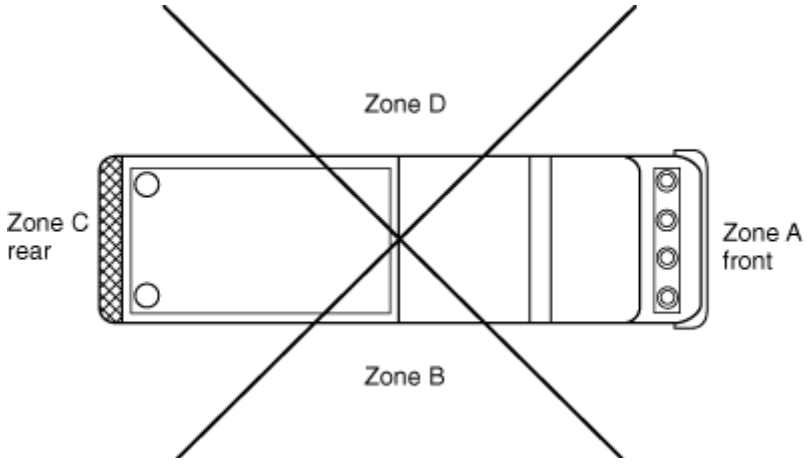

FIGURE: Warning Zones for Optical Warning Devices

4.4.4 Each optical warning device shall be installed on the MINI FIRE TENDER and connected to the MINI FIRE TENDER's electrical system in accordance with the requirements
4.4.5 A master optical warning device switch that energizes all of the optical warning devices shall be provided in driver's cabin.
4.4.6 The front optical warning devices shall be placed so as to maintain the maximum possible separation from the headlights.
4.4.7 Flash Rate: The minimum flash rate of any optical source shall be 75 flashes per minute, and the minimum number of flashes at any measurement point shall be 150 flashes per minute.

4.4.8 Color of Warning Lights: Permissible colors or combinations of colors in each zone, within the constraints imposed by applicable laws and regulations, shall be as shown in Table.

Table Zone Colors		
Color	Calling for Right-of-Way	Blocking Right-of-Way
Red	Any zone	Any zone
Blue	Any zone	Any zone
Yellow	Any zone except A	Any zone
White	Any zone except C	Not permitted

4.4.9 **Audible Warning Devices :**

4.4.9.1 Audible warning equipment in the form of at least one automotive traffic horn and one electric or electronic siren shall be provided.

4.4.9.2 A means shall be provided to allow the activation of the siren within convenient reach of the driver.

4.4.10 **Work Lighting :**

4.4.10.1 The work area immediately behind the vehicle shall be illuminated

4.4.10.2 The "MINI FIRE TENDER" shall be equipped with lighting that is capable of providing illumination on ground areas within 30 in. (800 mm) of the edge of the MINI FIRE TENDER in areas designed for personnel to climb onto the MINI FIRE TENDER or descend from the MINI FIRE TENDER to the ground level.

4.4.10.3 All other ground area lighting shall be switchable.

4.4.10.4 Surface Lighting. The MINI FIRE TENDER shall have sufficient lighting on all work surfaces, steps, and walkways.

4.4.10.5 Compartment Lighting Each engine compartment and pump compartment shall have a light.

4.4.10.6 Switches for all work lighting shall be readily accessible.

4.4.10.7 The lights shall be arranged or protected to minimize accidental breakage.

4.4.10.8 LED Flood light bar shall be provided at the Top of Vehicle.

4.4.11 An electric or electronic backup alarm (Reverse Horn) with light indication shall be provided that meets the Type D (87 dBA) requirements.

4.4.12 The MINI FIRE TENDER shall be equipped with all legally required stop, tail, and directional lights.

4.4.13 Directional lights shall be visible from the front, sides, and rear of the MINI FIRE TENDER.

4.4.14 Equipment shall not be mounted in a manner that obscures the stop, tail, or directional lights.

5.0 **DRIVING AREAS**:

5.1 **Instrumentation and Controls :**

5.1.1 The following instrumentation and controls shall be mounted in the driving compartment and shall be identified and visible to the driver while seated:

a) Tachometer
b) Odometer
c) Oil pressure indicator or gauge
d) Coolant temperature indicator or gauge
e) Voltmeter
f) Air pressure gauge(s), if applicable
g) Turn signal control and indicator lights

h) Headlight/DOT light switch
i) High-beam headlight switch and indicator
j) Fuel level gauge(s)
k) Master ignition switch
l) Warning lights and siren switches
m) Master electrical load switch
n) "Battery on" indicator light
o) Windshield wipers and windshield washer control

5.2 Controls and switches that are expected to be operated by the driver while the MINI FIRE TENDER is in motion shall be within convenient reach for the driver.

5.3 Seating arrangement for **One person** shall be provided in Driving cabin. There shall be two doors in the cabin, sized generously with proper arrangement for embarking and disembarking of crewmembers.

5.4 The doors shall open outwards and hung forward and shall have levers for unlatching from outside and inside. The doors shall be provided with shatterproof safety glasses which can be raised / lowered by winding type mechanism.

5.5 Battery shall be placed in totally enclosed box with spark proof gland for cable entry with battery cut-Off switch. Installed battery shall have a charging faculty from external source at its location itself.

6.0 BODY, COMPARTMENTS AND EQUIPMENT MOUNTING:

6.1 STRUCTURE / FRAME WORK :

6.1.1 The structure/frame work on chassis & crew cabin shall be of welded construction and made from 30 mm X 30 mm X1.6 mm hollow square section of SS-316L.

6.1.2 The roof of the Unit entire rear, locker floor and sides shall be made from minimum 2 MM of Aluminum sheets suitably treated for slippage and these shall be bolted to the frame for ease in removal of the tank for repairs.

6.1.3 Cross supporting members of the paneling shall be made of SS-316L channels of 75 mm X 5 mm thickness

6.1.4 Proper access ladder with Grab rails and non-skid steps shall be provided to give access to the roof for approaching to the manholes for tank etc.

6.1.5 Access handrails shall be provided at each entrance to a driving compartment and at each position where steps or ladders for climbing are located.

6.1.6 Access handrails shall be constructed of, or covered with, a slip-resistant, non-corrosive material.

6.1.7 Handrails shall be between 1 in. and 1-5/8 in. (25 mm and 41 mm) in diameter and have a minimum clearance between the handrails and any surface of at least 2 in. (51 mm).

6.1.8 All handrails shall be designed and mounted to reduce the possibility of hand slippage and to avoid snagging of hose, equipment, or clothing.

6.1.9 Dual sun-visors and long arm rear view mirrors shall be fitted to drivers' cabin.

6.1.10 Proper draining arrangements shall be provided on the entire roof, crew cabin and inside the lockers.

6.1.11 Arrangement to be provided between driving cabin and water tank for inspection / maintenance of PTO & Hi- Pressure Pump with proper stepping (From Both Side) & suitable Door.

6.2 LOCKERS :

6.2.1 Size and number of locker shall be provided to keeping fire hoses and equipment. Sufficient numbers of lockers shall be provided to accommodate all the equipment/accessories in an easily accessible manner.

6.2.2 All lockers shall be provided with Roller type shutter doors. The shutters shall have smooth operation. The aluminum shutters shall be dust & water proof of **M/s. MCD, France** imported make only made of extruded aluminum & duly hard anodized.

6.2.3 Roller shutters shall be of hollow rectangular shaped & made from aluminium inter-changeable links connected by means of plastic profiles.

6.2.4 Sealing of roller shutter shall be watertight when closed.

6.2.5 Roller shutters shall be inward rolling type and shall be provided with guide rails over entire length on both sides to make them torsion free.

6.2.6 When shutters are rolled, unobstructed access should be available to the equipment & hoses.

6.2.7 Shutters should open in all positions of the Unit even in rough terrains.

6.2.8 Roller shutters shall have locking arrangement to prevent accidental opening during movement of the Unit.

6.2.9 Spare Locking assembly (Along with Aluminium Tube, LT & Rt. Handle etc.)- 10 Nos.

6.2.10 All the lockers shall be illuminated by MCD make LED lightning system.

6.2.11 All the lockers shall be fitted with internal lighting, which shall be capable of being automatically switched, 'ON' and 'OFF' by the opening of shutters. A master switch for isolating the locker lighting circuit shall also be fitted in the driver's cabin.

6.2.12 Lockers shall have arrangement for self-draining of any water entering inside

6.2.13 Sufficient number of lockers shall be provided for storage of all accessories listed. Lockers shall also be provided to accommodate 02 Nos., 09 DCP extinguishers.

6.2.14 Lockers shall be accessible from ground level by a man of average height (1.67M). All the Lockers shall be provided with 3M make, 4MM thick, vulcanized synthetic rubber mat at bottom and up-to 12 inch on three sides.

6.2.15 The hose storage area(s) shall be reinforced at the corners.

6.2.16 The bottom shall be made of removable sections fabricated from noncorrosive materials.

6.2.17 The bottom shall be constructed to prevent the accumulation of water and allow ventilation to aid in drying of hose.

6.2.18 The interior shall be smooth and free from all projections, such as nuts, sharp angles, or brackets that might cause damage to the hose.

6.2.19 Ladders and equipment holders shall be placed so as not to obstruct the laying or removal of hose from the storage area.

6.2.20 All electrical junctions or wiring within lockers / compartments shall be protected from mechanical damage resulting from equipment stored in the compartment.

6.2.21 Equipment holders shall be attached and shall be designed so that equipment remains in place under all vehicle operating conditions.

6.2.22 All tools and equipment shall be readily accessible.

6.3 **Pump and Plumbing Access :**

6.3.1 **WATER & FOAM PIPINGS:**

6.3.1.1 Water & Foam piping shall be of SS-316L grade.

6.3.1.2 Pipes, fittings and valves in the water circuit that will come in contact with Foam solution (water/Foam mixture) shall be of SS-316L.

6.3.1.3 Stainless Steel lines joint - The bolting (studs, bolts) at break flanges shall be of SS-316L with SS washers.

6.3.1.4 A flow chart/schematic diagram shall be made and supplied with the MINI FIRE TENDER.

6.4 One or more doors or panels that open or are removable without the use of tools shall be provided to allow visual inspection or access for checking the fire pump and plumbing area(If required).

6.5 All valves, gauges, controls, and other plumbing equipment shall be accessible for service and replacement.

6.6 The clear space required by the pump manufacturer to perform in-truck overhaul and maintenance shall be provided.

6.7 All materials used for exterior surfaces designated as stepping, standing, and walking areas and all interior steps shall have slip resistance.

6.8 All materials used for interior floors shall have slip resistance.

6.9 **PAINTING AND MARKING :**

6.9.1 Vehicle should be painted with 2 coats of zinc phosphate epoxy primer each of 50 microns DFT and two coats of polyurethane finished **RED paint** each coat of 50 microns DFT

6.9.2 All the lockers / cabins shall be provided with Stainless steel Name Plates with letters itched on it boldly indicating the content.

6.9.3 Water lines should be painted with of zinc phosphate epoxy primer each of 50 microns DFT and two coats of polyurethane finished paint each coat of 50 microns DFT. Water lines shall be painted red in colour.

6.9.4 Paint shall be of Asian/Burger/Akzonoble/3M make only.

6.9.5 OIL's emblem in original colour together with name shall be written in golden yellow colour on both sides of the vehicle.

6.9.6 On the front of the vehicle "MINI FIRE TENDER" shall be written IN ENGLISH.

6.9.7 The inside of lockers shall be painted.

6.9.8 The chassis frame shall be painted **Black** and wheel arch shall be painted **White**.

6.9.9 Mud flappers of sufficient length and width shall be provided at wheels.

6.9.10 Under frame of Chassis shall be painted with chlorinated **Rubber paint**.

6.9.11 The appliance shall be clearly having the following marks at suitable locations.

(a) Manufacturer's name & trade mark.
(b) Purchase Order No. & Date
(c) Year of manufacture
(d) Plunger Pump serial numbers and capacities
(e) Capacity of water tank in litres.
(f) Capacity of foam tank in litres.
(g) Engine and chassis number.
(h) All instrument control & valves shall be identified with properly itched metallic Name plates.
(i) All valves and hoses inlet and outlet shall also be identified by suitable metallic Nameplates.

6.9.12 All exposed ferrous metal surfaces that are not plated or stainless steel shall be cleaned and prepared and shall be painted or coated.

6.9.13 The paint or coating, including any primer, shall be applied in accordance with the paint or coating manufacturer's recommendation.

6.9.14 A reflective stripe(s) shall be affixed to the perimeter of the MINI FIRE TENDER.

6.9.15 The stripe or combination of stripes shall be a minimum of 4 in. (100 mm) in total width and shall conform the requirements.

6.9.16 At least 50 percent of the cab and body length on each side, at least 50 percent of the width of the rear, and at least 25 percent of the width of the front of the MINI FIRE TENDER shall have the reflective material affixed to it.

7.0 **Plunger Pump**:

7.1.1 Plunger pump should able to discharge 400 LPM @ 100 bar capacity for water-mist generation. The delivery assembly consists of spray gun, high pressure hose reel of 60 meter and high pressure hose etc.

7.1.2 The pump should be plunger type, positive displacement type working to the capacity approx.. 800-1000 RPM.

7.1.3 A by-pass for letting the water back to the tank will be provided to release excess pressure generated when one of the hand lines is shut or when discharging a lower output.

7.1.4 The pump will be guaranteed for five years or minimum life of 5000 Hrs. whichever is later of operation.

7.1.5 The pump will have double seal on each plunger with low pressure intermediate chamber to keep the water seals cool & lubricated.

7.1.6 This system will also permit to re-circulate any leakage from the high pressure back to pump inlet.

7.1.7 The pump will have synthesized pistons of ceramic.

7.1.8 The connecting rods would be of an alloy which has low attrition co-efficient, high wear resistance & high anti seize up properties.

7.1.9 Hydraulic structure would be designed to simplify scheduled maintenance procedures (gasket & valve replacement).

7.1.10 The pump suction line will have inline mesh filters of OEM.

7.1.11 The pump will have Safety relief valve of OEM.

7.1.12 The pump discharge line will have Pulsation dampener for smooth flow.

7.1.13 The pump will deliver water to all UHP hose reels as well as UHP monitor.

7.1.14 Provision/ connection to be provided with 3-6% foam suction also.

7.1.15 The Pump should have strainer in the suction line.

7.1.16 The strainer shall be suitably placed for ease of cleaning.

7.1.17 Arrangement shall be provided to back flow flush the strainer with the help of external water Pr. (or Water from main pump) to clean the strainer without opening.

7.1.18 All the line valves shall be pneumatic operated. Control of all the valves shall be from rear mounted pump panel. Manual override shall also be provided for all pneumatic valves.

7.1.19 Two nos. separate instantaneous female connection of 63 mm with valve shall be provided at suitable location (preferably rear side of the vehicle). A suitable safety device/ reducer/ unloader valve shall be provided to discharge the pressure not more than 10 kg/cm2.

7.1.20 **UHP HOSE REELS**:

7.1.20.1 Four (04) hose reels of 60 Mtrs. Lengths, each hose lengths should be provided with quick release coupling (QRC) on gun side. Hose reels should have NRV or other mechanism to avoid Hi-pressure jet in case of failure/ release of QRC. Hose reels shall be provided each side of the vehicle.

7.1.20.2 The hose used for the hose reel would be rated for 130 bar working pressure (180 bar test pressure) & will be of min. 16 mm ID.

7.1.20.3 The hose shall be of R2 grade, shall allow sufficient flow to the high pressure guns & reduce frictional resistance.

7.1.20.4 It will have geared winding system.

7.1.20.5 At the discharge end of the hose reels, high-pressure fog gun will be provided which will be capable of discharging 75 LPM @ 100 bar pressure in jet or Fog patterns.

7.1.21 **HIGH PRESSURE FOG GUNS**:

7.1.21.1 At the discharge end of hose reels, high-pressure fog guns, capable of discharging min. 75 LPM @100 bar & 150 LPM @50 bar in jet or fog patterns will be provided.

7.1.21.2 The jet range will not be less than 21 Mtrs. for the gun with output of 150 LPM and should not be less than 16 Mtrs. for the gun with 75 LPM output.

7.1.21.3 The water droplets in the spray form will be of approximately 250 microns at an angle of 45 degree.

7.1.21.4 The above gun shall be reputed make.

7.1.21.5 **Spare**

7.1.21.5.1 Two nos. of above said gun shall be supplied as spare.

7.1.21.5.2 Eight Nos. Hose Pipe (30 Mtrs. Each) with matching QR couplings (male & female on both ends) shall be supplied as spare.

7.1.21.5.3 Two Nos. Hose Pipe (30 Mtrs. Each) with matching couplings shall be supplied as spare.

7.1.21.5.4 Two Nos. connection (s)/ pipe from Pump to Hose reel along with fittings shall be provided in addition to the connections fitted as spare.

7.1.21.5.5 Four Nos. matching strainers for pump.

7.1.22 **Connections from/to Pump :**

I. Water Tank to Pump Suction
II. Foam Tank to Pump Suction
III. Pump to Water tank thro safety valve
IV. Pump to Hi-Pr. Guns
V. Pump to low pr. system
VI. Pump to UHP Monitor

7.1.23 **UHP Monitor:**

7.1.23.1 A remote controlled UHP monitor of minimum 400 LPM shall be provided at a suitable location on the roof of the vehicle.

7.1.23.2 Monitor shall be constructed from lightweight Teflon Impregnated hard anodized alloy elliptical shape with a veined waterway of minimum 2" with a flow of min. 400 LPM @ 100 Bar pressure.

7.1.23.3 It shall be constructed with thrust rods and thrust bearings on both horizontal and vertical rotational joints for improved product longevity.

7.1.23.4 It shall have two NEMA 6 rated gear motors that allow for simultaneous vertical and horizontal adjustment, one motor shall control the continuous 350 degree horizontal rotation while the other motor shall control the - 45 degree to +90 degree vertical rotation from horizontal; horizontal and vertical motors shall have a manual override device for use in the event of power failure; electric controls shall be NEMA 4 rated and allow for programmable horizontal center position, horizontal stops, stow position, black out zones, and motor speeds fast or slow; electric control shall allow for horizontal and vertical oscillation, electric control shall be CAN and/or radio frequency compatible; electric control shall be compatible with both 12VDC and 24VDC power supply.

7.1.23.5 The monitor shall be supplied with full functional proportional joystick (Placed at driver's cabin), panel mount / hand held wireless remote controller and a unibody butterfly valve with electric actuator control on joystick.

7.1.23.6 The electric actuators shall be completely sealed and allow precise pattern control from straight stream to wide fog. The monitor shall be of M/s. Elkhart Brass, USA or equivalent only.

8.0 **FOAM PROPORTIONING SYSTEM** : The Foam Proportioning system shall be capable to induct of 6 % of Foam.

9.0 WATER TANK:

9.1 Net capacity of water tank shall be of 3000 litres. In addition a 2% expansion space shall be made in the water tank over & above the water capacity.

9.2 The water tank shall be fabricated out of minimum 4 MM thick SS-316L plates for the bottom & 3 MM thick SS-316L plates for the sides & top.

9.3 The tank shall be of welded construction and shall be suitably **die pressed stiffened** (All Four Sides) with to avoid buckling and distortion.

9.4 The tank shall have baffles, of minimum 3MM thickness, SS-316L plates, so as to avoid water surging due to movement of vehicle.

9.5 Baffle plates will be connected to the tank with SS nut/bolts.

9.6 The threads of bolts shall be TAC welded beyond the nut to prevent the nuts falling in the tank due to vibrations.

9.7 Tank shall be provided with anti-vortex device at the nozzle for pump suction.

9.8 An inspection manhole of suitable size shall be provided on top with a hinged and bolt able cover with suitable gasket.

9.9 Suitable lifting lugs shall be provided on the tank shell to enable it to be lifted off the vehicle for repairs/replacement as necessary.

9.10 The tank shall be fitted with a sludge trap. The bottom of the tank shall have a slight slope towards the sludge trap.

9.11 The tank shall also have a cleaning hole. Manhole shall be fitted with 50MM drain pipe with SS ball valve and 63MM (SS) ISI marked instantaneous coupling incorporated in it.

9.12 The tank shall be fitted with overflow pipes of suitable diameter and the discharge end shall be taken below the chassis without reducing the effective ground clearance. The overflow pipe shall be routed to outside water tank.

9.13 The tank shall be filled by means of suitably sized inlet line from pressurized hydrant mains minimum 02 Nos.

9.14 63MM ISI marked, SS instantaneous male connectors shall be connected to the filling line.

9.15 The inlet lines will be provided from reputed Make SS ball valve.

9.16 Water filling arrangement to the tank shall be provided from upper side of the tank only and the filling line shall be routed to outside of water tank.

9.17 The tank shall have an adequately sized breather valve. The inlet line in the tank shall have an adequately strong deflector plate, which will avoid the incoming jet of water from hitting the tank sides/bottom.

9.18 All nozzles for the tank shall have suitable reinforcement pads. Nozzles shall also have adequate stiffeners to take the loads from piping.

9.19 Tank supporting structure on the chassis shall be of SS-316L.

9.20 Reinforcement pads at tank supporting structure shall be of same thickness and material as that of the water tank.

9.21 Tank Construction & Mounting :

9.21.1 Water tank should be independent of the body and compartments, it shall be equipped with a method for lifting the tank(s) off of the chassis.

9.21.2 Water tank shall be provided with baffles to form a containment or dynamic method of water movement control.

9.21.3 The water tank will be mounted on the vehicle on a sub frame using Rubber Metacones. This sub frame will be made from Anti-Corrosive Treated MS 4” section and will be bolted with the chassis using the high tensile bolts. 'U' Bolts shall not be used for mounting of tanks on vehicle. The rubber metacones shall facilitate to absorb the jerks and bending torsions in expansion as well as compression mode without high deflection. The manufacturer shall provide complete design data of metacones and sub frame including the load calculations and metacone quantity sufficiency. Tank will be mounted on the chassis in a manner keeping in view the proper load distribution on the axles. The baffles will be arranged in a manner to facilitate easy cleaning of the tanks. The tank will be mounted on two / three cross bearers to counteract stresses caused by chassis flexing. The Centre of Gravity shall be maintained as low as possible.

9.22 **Water Level Indicator** :

9.22.1 An indicator shall be provided that shows the level or amount of water in the tank(s).

9.22.2 A suitably protected water level indicator of the graduated glass tube, clear acrylic shall be provided close to the control panel. Isolation valve shall be provided just after the tap off point near the water tank for the level indicator.

9.22.3 Electronic LED Water Level Indicators indicating the tank levels as EMPTY, ¼, ½ , ¾ and FULL shall be provided on the pump control panel. These levels shall be indicated by number of glowing LED lights (no LED Lights means and empty tank, All LED Lights means full tank).

9.22.4 The indicators shall be located on the rear pump control panel in such a manner that the Operator / Firemen can easily view the tank levels while being away from the vehicle.

9.22.5 Repeater Secondary Level Indicators shall be provided in the driver's cab to check the Water level from the cab while travelling.

9.23 **Tank-to-Pump Intake Line :**

9.23.1 The water tank shall be connected to the intake side of the pump with a valve controlled at the pump operator's position.

9.23.2 Filling and Venting :

a. Fill Opening: - A convenient covered fill opening designed to prevent spillage shall be provided.
b. Vent/Overflow Outlet: - A vent/overflow outlet that is sized to allow water to be drawn from the tank.
c. External Fill: - An external fill connection leading directly to the tank shall be provided.
d. The external fill connection shall be provided with a **removable or accessible strainer,** a shutoff valve capable of being throttled, a minimum 30-degree sweep elbow positioned downward, and a closure cap or plug.

9.24 **Water Tank Capacity Certification :**

a. The manufacturer shall certify the capacity of the water tank prior to delivery of the MINI FIRE TENDER.
b. The certified capacity shall be recorded on the manufacturer's record of construction and the certification shall be provided to the OIL when the MINI FIRE TENDER is delivered.

9.25 **PIPING :**

9.25.1 All piping shall be designed to have minimum pressure drop and achieve the required pressure and flow at various locations.

9.25.2 All piping shall be seamless and designed for 10% over the maximum pressures encountered in the pipe.

9.25.3 The piping shall be designed for ease of maintenance. However, joints to be kept minimum.

9.25.4 All lines shall be suitably supported so as to provide rigidity and avoid vibrations.

9.26 **ACCESSORIES :**

9.26.1 **CONTROL PANEL :**

Adequately illuminated pump operating panel shall be provided at the rear side of the appliance and these shall include the following areas:

a. Auxiliary throttle control for the engine (Electric throttle if provision by chassis manufacturer).
b. Independent pressure gauges for pump discharge (Glycerine filled).
c. Quick opening valve for lining up water tank to pump.
d. Level gauge for water tank & Foam Tank.
e. System schematic etched on Stainless Steel plate.
f. Operating instruction plate and flushing out instruction plate (both on boldly etched Stainless steel plates).
g. RPM for pump.

9.26.2 In addition to the items mentioned above, vendor shall provide any other items that he may find essential. Any of these items which are also required in the driver’s cabin shall be provided at suitable locations in the driver’s cabin. Each lever, switch, valve, gauges, outlet/inlet etc. shall have identification made on metal plate and duly riveted. The microphone of the PA system shall be fixed inside the driver cabin on a flexible stand at a suitable location.

10.0 FOAM CONCENTRATE TANK :

10.1 The foam compound tank of **500 liters** net capacity shall be fabricated out of 4MM thick SS-316L plates for the bottom & 3 MM thick SS-316L for the sides & top. In addition 2% of expansion space shall be made in the tank, over and above foam compound capacity.

10.2 The foam tank shall be of welded construction and shall be suitably stiffened with SS 316L angles/flats so as to avoid buckling and distortion.

10.3 Weld joints shall be minimized

10.4 Suitable lifting lugs shall be provided on the tank shell to enable it to be lifted off the vehicle for repairs/replacement as necessary.

10.5 The tank shall also have a drain pipe with reputed make S.S. ball valve and 63MM (SS) instantaneous male coupling incorporated in it.

10.6 The tank shall have a filling hole at top. The filling manhole shall have a screwed cap. The filler cap shall have an etched SS name plates with marking 'FOAM'.

10.7 Breather valve shall be provided for automatic venting of the foam compound tank when the foam compound is drawn from it or when the tank is being filled.

10.8 Tank supporting structure shall be of SS 316L.

10.9 Reinforcement pads at tank supporting structure shall be of same thickness and material as that of the foam tank

10.10 The foam concentrate tank(s) shall be designed and constructed to facilitate complete interior flushing and cleaning as required.

10.11 Level Indicator for foam tank shall be provided.

10.12 The foam concentrate tank shall be constructed and installed to be independent of the tender body and may be located at the rear side of vehicle.

10.13 The foam concentrate tank outlet connection shall be designed and located to prevent aeration of the foam concentrate and shall allow withdrawal of 80 percent of the foam concentrate tank storage capacity under all operating conditions with the Tender on level ground.

10.14 **Foam Level Indicator :**

10.14.1 An indicator shall be provided that shows the level or amount of Foam in the tank(s).

10.14.2 A suitably protected Foam level indicator of the graduated glass tube, clear acrylic shall be provided close to the control panel. Isolation valve shall be provided just after the tap off point near the Foam tank for the level indicator.

10.14.3 Electronic LED Foam Level Indicators indicating the tank levels as EMPTY, ¼, ½ , ¾ and FULL shall be provided on the pump control panel. These levels shall be indicated by number of glowing LED lights (no LED Lights means and empty tank, All LED Lights means full tank).

10.14.4 The indicators shall be located on the rear pump control panel in such a manner that the Operator / Firemen can easily view the tank levels while being away from the vehicle.

10.14.5 Repeater Secondary Level Indicators shall be provided in the driver's cab to check the Foam level from the cab while travelling.

11.0 PERFORMANCE GUARANTEE :

The manufacturer shall guarantee the design, material, workmanship and the performance of the unit for a period of 18 months from the date of the supply of completed vehicle. The vendor, at owner's premises, shall rectify any mechanical defect, faulty workmanship or operational defects found during this period within reasonable time without any extra cost.

12.0 TRAINING :

After supply of the vehicle, the vendor shall provide two days training on operation & maintenance of fire vehicle including chassis at owner's site and charges for the same shall be included in the price.

Abbreviation:

Unit - Complete Mini Fire Tender
MVA - Motor Vehicle Act
RPM - Revolutions per Minute
LED - Light-Emitting Diode
PSV - Pressure Safety Valve

Annexure – A

For GVW Calculation

S. No.	Item	Weight (Approx. Kg)
1.	Water tank of capacity 3000 Liters capacity	4000
2.	Foam Tank of capacity 500 Liters capacity	750
3.	Chassis	**3700 to 4400**
4.	Pumps (Hi Pressure), PTO & Propeller Shaft, Hose real	425
5.	Fabrication & Piping	400
6.	Weight of crew members (03 Nos.)	**225**
7.	Weight of Following Accessories:- Delivery Hoses (22.5 Mtrs. - 05 Nos.) Male to Male coupling (01 No.) Female to Female coupling (01 No.) Ceiling Hook (01 No.) Collecting head (01 No.) Manila rope (1” diameter, 20M length) Suction Hose (100 MM X 2.5 Mtrs. -02 Nos.) Suction wrenches (02 Sets) Strainer (01 No.)	100
	Total	9600 to 10320

ANNEXURE- DDD

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor"

Preamble:

The Principal intends to award, under laid down organizational procedures, contract/s for **SDI6040P18** The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section: 1 -Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

3. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a Page 2 of 6 substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section: 2 -Commitments of the Bidder/Contractor

(1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

1. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which h e/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, Subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

4. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

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

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

5. Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings

ANNEXURE- DDD

Section 4 -Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 -Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section: 6 -Equal treatment of all Bidders/Contractor/Subcontractors

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.

2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

ANNEXURE- DDD

Section: 7 -Criminal charges against violating Bidders/Contractors/ Subcontractors

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

Section: 8 -External Independent Monitor/Monitors

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.

3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.

6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to

him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

7. If the Monitor has reported to the Chairperson of the Board a Substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8. The word 'Monitor' would include both singular and plural.

Section:9 -Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.
If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

Section:10 -Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.

2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.

4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

R BARMAN
CHIEF MANAGER MATERIALS (IP)

.....	**.....**
For the Principal	**For the Bidder/Contractor**
	Witness 1: .....
	Witness 2: .....

Place. DULIAJAN
Date . 17.10.2017

Technical Bid Checklist **Annexure-EEE**

Tender No.	
Bidder's Name :	

SL. NO.	BEC / TENDER REQUIREMENTS	Compliance by Bidder	
		Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	**Confirm that validity has been offered as per NIT.**		
2	**Confirm that Bid Security / Earnest Money has been submitted as per NIT (Wherever Applicable) ?**		
3	**Confirm that you shall submit Performance security (in the event of placement of order) (Wherever Applicable) ?**		
4	**Confirm that duly signed Integrity Pact has been submitted as per NIT (Wherever Applicable) ?**		
5	**Confirm that you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)**		
6	**Confirm that you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.**		
7	**Confirm that the bid has been signed using Class 3 digital certificate with Organisation's Name as per NIT.**		
8	**Confirm that you have not taken any exception/deviations to the NIT .**		

NOTE: Please fill up the greyed cells only.

(*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Receipted Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory execution of the purchase order cited above.

Response Sheet **Annexure-FFF**

Tender No.	
Bidders Name	

Bidders Response Sheet

Sl No.	Description	Remarks
1	Place of Despatch	
2	Whether Freight charges have been included in your quoted prices	
3	Whether Insurance charges have been included in your quoted prices	
4	Make of quoted Product	
5	Offered Validity of Bid as per NIT	
6	Bid Security Submitted (if applicable)	
6	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
7	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
8	Integrity Pact Submitted (if applicable)	
9	Whether you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)	
10	Whether you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.	
11	Delivery Period in weeks from placement of order	
12	Complied to Payment terms of NIT (if applicable) otherwise to Standard Payment Terms of OIL or not.	
13	If bidder is MSE whether you have quoted your own product	
14	If Bid security submitted as Bank Guarantee, Name and Full Address of Issuing Bank including Telephone, Fax Nos and Email id of branch manager	

NOTE: Please fill up the greyed cells only.

(*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Receipted Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory

ANNEXURE - GGG

(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETER HEAD)
(ALL FIELDS ARE MANDATORY)

Tender No.	**:……**
Name of Beneficiary	**:M/s.……**
Vendor Code	**:……...**
Address	**:...…….**
	...……...
Phone No. (Land Line)	**:...…….**
Mobile No.	**:...…….**
E-mail address	**:...…….**
Bank Account No. (Minimum	
Eleven Digit No.)	**:...…….**
Bank Name	**:...…….**
Branch	**:...…….**
Complete Address of your	**:...…….**
Bank	**:...…….**

IFSC Code of your Bank

a) RTGS	**:……...**
b) NEFT	**:……...**
PAN	**:……...**
VAT Registration No.	**:……...**
CST Registration No.	**:……...**
Service Tax Registration No.	**:……...**
Provident Fund Registration	**:……...**

I/We confirm and agree that all payments due to me/us from Oil India Limited can be remitted to our above mentioned account directly and we shall not hold Oil India Limited responsible if the amount due from Oil India Limited is remitted to wrong account due to incorrect details furnished by us.

……
Office Seal **Signature of Vendor**

Counter Signed by Banker:
Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

1) **PAN Card**
2) **VAT Registration Certificate**
3) **Service Tax Registration**
4) **CST Registration**
5) **Provident Registration Certificate**
6) **Cancelled cheque of the bank account mentioned above (in original).**
7) **Bank Statement not older than 15 days on the date of submission.**