

CONTRACT SECTION, PHQ NOONMATI

DATE: 21st DECEMBER 2022

CORRIGENDUM – 2 FOR OIL’S GEM TENDER NO. GEM/2022/B/2792811 Dated: 29-11-2022

1. THIS CORRIGENDUM IS BEING ISSUED TO INCORPORATE THE FOLLWING IN THE SUBJECT TENDER :

Sl.No.	Page No. / Clause	Clause	Query	OIL’s reply
1	Page 2 Cl.2.XIV of Introduction	Location of Job-Pump Station-8, Sonapur, West Bengal	Please confirm whether there is any job at the prescribed place other than CTF, Duliajan	Location of job: Central Tank Farm, Duliajan
2	Proforma VIII Undertaking	Bidder against the subject tender, hereby declare that my/our quoted rates include the following: b. Cost of PPE, Spares, Consumables, tools & tackles etc.	In page 87 of 97, it is mentioned that the spares cost will be reimbursed with 5% handling charges. And In Page 70 of 97, it is mentioned that OIL shall supply the POL Items viz. Engine Oil, gear oil, Coolant, HSD. So, the undertaking and the scope in tender doc. is contradictory. Please confirm.	It is confirmed that spares cost shall be reimbursed with 5% handling charges for additional spares only, which are not listed in the mandatory spares list. The contractor shall be paid the invoiced amount of the additional spares including base price of the item, taxes & duties as applicable, transportation charges on FOR Duliajan basis. However, the contractor shall obtain a minimum of three quotations from three different vendors as per OIL’s prevailing procurement process and purchase from the vendor quoting the lowest price.

				It is confirmed that OIL shall supply the POL items viz engine oil, gear oil, coolants and HSD for normal day to day routine maintenance jobs. Contractor shall have to provide all the other consumables for routine/scheduled maintenance jobs carried out at Daily/Weekly/monthly/as per OEM recommendation intervals. In addition, consumables for battery maintenances like distilled water, petroleum jelly, sand papers etc shall have to be provided by the contractor.
3	Price Bid Format BOQ	The superscription of the price bid is mentioned as O&M of CTF,.... Conversion of existing pipeline section attached to Road/Rail Bridge.	In the Scope of Work, no where it is mentioned about the conversion of existing pipeline. Please confirm/clarify	Please read the superscription of the price bid as “Hiring the services for Operation & Maintenance of the Central Tank Farm (CTF) along with new facilities installed post M B Lal Committee recommendation at Duliajan for a period of two (02) years”
4	Price Bid Format BOQ	In Price bid format, Sl.No.30, 40, 50 & 60 is for quoting mandatory spares.	There is no Annexures or bid format for breakup of individual spares in the Price bid. Please clarify.	For individual spares break up, kindly refer to the following pages of STC; 1. For mechanical spares, kindly refer to page no 70-71 of 97. 2. For spares of clean agent /Fire alarm system, kindly refer to page no 79 of 97 3. For electrical spares, kindly refer to page no 63 of 97 4. For instrumentation system, kindly refer to page no 61 of 97

ALL OTHER TERMS AND CONDITIONS SHALL REMAIN UNCHANGED IN THE ABOVE TENDER.



CONTRACT SECTION, PHQ NOONMATI

DATE: 10TH DECEMBER 2022

CORRIGENDUM – 1 FOR OIL’S GEM TENDER NO. GEM/2022/B/2792811 Dated: 29-11-2022

1. **THIS CORRIGENDUM IS BEING ISSUED TO INCORPORATE THE GENERAL CONDITIONS OF CONTRACT (GCC) AND SPECIAL CONDITIONS OF THE CONTRACT (SCC) IN THE SUBJECT TENDER AS PER ATTACHED DOCUMENT.**

ALL OTHER TERMS AND CONDITIONS SHALL REMAIN UNCHANGED IN THE ABOVE TENDER

SPECIAL TERMS & CONDITIONS (STC)

SECTION-I: GENERAL CONDITIONS OF CONTRACT (GCC)

GENERAL CONDITIONS OF CONTRACT

1.0 APPLICABILITY, DEFINITION & INTERPRETATION

1.1 Applicability

All clauses in the General Conditions of Contract [GCC] shall apply to all transactions except as otherwise stated in the Special Conditions of Contract [SCC] and/or BEC/BRC. Furthermore, in the event if there is any conflict between the Principal text of the Agreement and the Appendixes, the Principal text will prevail.

1.2 Definition & Interpretation

In the contract (as hereinafter defined) the following words and expressions shall have the meaning hereby assigned to them except where the context otherwise requires:

1.2.1 COMPANY/OIL/Operator:

Shall mean Oil India Limited [OIL] a public sector undertaking, incorporated under COMPANY's Act 1956 having its registered office at Duliajan-786602, Assam, India and includes its successor and permitted assigns.

1.2.2 CONTRACTOR:

Shall mean the person or persons, firm or COMPANY or corporation incorporated in India or abroad, who has been awarded with the contract and includes contractor's legal representatives, his successors and permitted assigns.

1.2.3 Contract:

Shall mean a written agreement between the COMPANY and the CONTRACTOR for execution of the services/works including all contract documents and subsequent amendments, if any.

1.2.4 Site:

Shall mean the place in which the operations/services are to be carried out or places approved by OIL for the purposes of the CONTRACT together with any other places designated in the CONTRACT as forming part of the site.

1.2.5 COMPANY's Site Representative/Engineer:

Shall mean the person or the persons appointed by the COMPANY from time to time to act on its behalf at the site for overall co-ordination, supervision and project management at site.

1.2.6 Sub-Contract:

Shall mean order/contract placed by the CONTRACTOR for any portion of the CONTRACT or work sublet with necessary written consent of COMPANY on third party. Such sub-letting shall not relieve the CONTRACTOR from any obligation, duty or responsibility under the CONTRACT.

1.2.7 Sub-Contractor:

Shall mean any person or firm or COMPANY (other than CONTRACTOR) to whom any part

of the work has been entrusted by CONTRACTOR, with written consent of OIL or the persons appointed by OIL, successors and permitted assigns of such persons, firm or COMPANY).

1.2.8 Contractor's Representative:

Shall mean such person/or persons duly appointed representative at the site and base as the CONTRACTOR may designate in writing to the COMPANY as having authority to act for the CONTRACTOR in matters affecting the work and to provide the requisite services.

1.2.9 Contract Price/Value:

Shall mean the sum accepted or the sum calculated in accordance with the rates accepted in tender and/or the contract rates as payable to the CONTRACTOR for the entire execution and completion of the services/works, including amendments/modification/change order issued by the COMPANY.

1.2.10 Firm price:

The prices will remain unchanged, except for statutory changes, during currency of the CONTRACT unless specifically agreed to in writing by COMPANY.

1.2.11 Service/Works/Operations:

Shall mean and include all items and things to be supplied/done and all work/Service to be performed by the CONTRACTOR as specified in the Scope of Work under this CONTRACT and shall also include all extra, additional, altered or substituted works/services as required for the purpose of successful execution of the Contract.

1.2.12 Equipment/Materials/Goods:

Shall mean and include any equipment, machinery, instruments, stores, goods which CONTRACTOR is required to provide to the COMPANY for/under the CONTRACT and amendments thereto.

1.2.13 Drawings:

Shall mean and include all Engineering sketches, general arrangements/ layout drawings, sectional plans, all elevations, photographs, etc. related to the CONTRACT together with modification and revision thereto.

1.2.14 Specifications:

Means and includes all technical specifications, provision attached and referred to in the tender/contract document regarding method and manner of performing the services and qualities of the service/materials to be provided under the contract and also as modified by the COMPANY/its site representative during the execution of contract in the best interest of service.

1.2.15 Engineer In-charge (EIC):

Shall mean the person designated from time to time by the COMPANY and shall include those who are expressly authorized by the COMPANY to act for and on its behalf for operation of the contract.

1.2.16 Inspectors:

Shall mean any person or outside Agency nominated by COMPANY to inspect equipment, materials and services, if any, in the CONTRACT (stage wise as well as final) as per the terms of the CONTRACT.

- 1.2.17 Tests:**
Shall mean such process or processes to be carried out by the CONTRACTOR as are prescribed in the CONTRACT, considered necessary by the COMPANY or their representative to ascertain quality, workmanship, performance and efficiency of equipment or services thereof.
- 1.2.18 Approval:**
Shall mean and include the written consent duly signed by COMPANY or their authorized official in respect of all documents, drawings or other particulars in relation to the CONTRACT.
- 1.2.19 Day:**
Shall mean a calendar day of twenty –four (24) consecutive hours beginning at 00:00 hours with reference to local time at the site.
- 1.2.20 Month:**
Shall mean a calendar month as per Gregorian calendar.
- 1.2.21 Year:**
Shall mean calendar year as per Gregorian calendar.
- 1.2.22 Working day:**
Means any day which is not declared to be holiday by the COMPANY.
- 1.2.23 Bid/offer:**
Shall mean the proposal/Offer along with supporting documents submitted by the bidder in response to the tender or enquiry in accordance with the terms of Tender or Enquiry, for consideration by COMPANY, prior to award of contract.
- 1.2.24 Guarantee:**
Shall mean the period and other conditions governing the warranty/guarantee of the services as provided in the CONTRACT.
- 1.2.25 Mobilization:**
Shall mean rendering the equipment fully manned and equipped as per CONTRACT and ready to begin work at site designated by the COMPANY and accepted by the COMPANY after inspection.
- 1.2.26 De-mobilization:**
Shall mean the removal of all items forming part of the mobilization from the site of the COMPANY and inspection and acceptance thereafter by the COMPANY including compliance of requirement in relation to re-export of imported equipment/materials under concessional duty scheme in accordance with relevant notification from Customs Authorities.
- 1.2.27 Willful Misconduct:**
Shall mean intentional disregard of good and prudent standards of performance or proper conduct under the Contract with knowledge that it is likely to result in any injury to any person or persons or loss or damage of property of the Company or Third Party.
- 1.2.28 Gross Negligence:**
Shall mean any act or failure to act (whether sole, joint or concurrent) by a person or entity

which was intended to cause, or which was in reckless disregard of or unjustifiable indifference to, avoidable and harmful consequences such person or entity knew, or should have known, would result from such act or failure to act. Notwithstanding the foregoing, Gross negligence shall not include any action taken in good faith for the safeguard of life or property.

1.2.29 Criminal Negligence:

Shall mean that the crime happened negligently, there was duty of care upon the Person but inadvertently due to his negligence, the duty was breached, which causes harm to the people in the form of death or serious injury.

1.2.30 GST Legislations:

‘GST legislations’ means ‘any or all of the following legislations as may be applicable to the CONTRACTOR and OIL:

- (A) The Central Goods & Services Tax Act, 2017;
- (B) The Integrated Goods & Services Act, 2017;
- (C) The Union Territory Goods & Services Tax Act, 2017;
- (D) The respective State Goods & Service Tax Acts’
- (E) The Goods and Services (Compensation to States) Act, 2017
- (F) The Customs Act and the Customs Tariff Act.
- (G) Any other applicable Act related to GST

2.0 CONTRACT DOCUMENT:

2.1 Governing language: The governing language for the CONTRACT shall be English. All CONTRACT documents and all correspondence and communication to be given and all other documentation to be prepared and supplied under the CONTRACT shall be written in English and the CONTRACT shall be construed and interpreted in accordance with English language.

2.2 Entire Agreement: The CONTRACT constitutes the entire agreement between OIL and the CONTRACTOR with respect to the subject matter of the CONTRACT and supersedes all communication, negotiations and agreement (whether written or oral) of the parties with respect thereto made prior to the date of this agreement, unless such communication(s) expressly forms part of the contract or included by reference.

2.3 Amendment in CONTRACT: No Amendment of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto. OIL shall not be bound by any printed conditions, provisions in the CONTRACTOR’s BID, forms of acknowledgement of CONTRACT, invoice and other documents which purport to impose any condition at variance with or supplement to CONTRACT.

3.0 WAIVERS AND AMENDMENTS:

3.1 Waivers: It is fully understood and agreed that none of the terms and conditions of this contract shall be deemed waived by either party unless such waiver is executed in writing only by the duly authorized representatives of both the parties. The failure of either party to execute any right shall not act as a waiver of such right by such party.

3.2 Change Program: It is agreed that CONTRACTOR shall carry out work in accordance with the completion program (e.g. Drilling Programme) to be furnished by the COMPANY, which may be changed from time to time by reasonable modifications in the program as COMPANY sees fit. COMPANY's instruction in this regard shall be final and binding.

4.0 CONTRACT TIMELINE:

4.1 Effective Date of Contract:

The contract shall become effective as of the date COMPANY notifies the CONTRACTOR in writing that it has been awarded the contract. This date of issuance of Letter of Award (LOA) by the COMPANY will be the effective date of contract. All terms and conditions of the contract shall come into force with the date of issuance of LOA.

4.2 Date of Commencement of Operation:

The date on which the mobilization is completed in all respects and CONTRACTOR is ready to commence operation as per the contract provision [Certified by the COMPANY's representative] will be treated as the date of Commencement of Operation.

4.3 Duration of the contract:

The contract shall be valid for a period as defined in the LOA and Special Conditions of Contract [SCC].

5.0 SCOPE OF WORK/CONTRACT:

Scope of the CONTRACT shall be as defined in the CONTRACT, specifications, drawings and Appendices.

6.0 GENERAL OBLIGATION OF CONTRACTOR:

CONTRACTOR shall, in accordance with and subject to the terms and conditions of this Contract:

6.1 Perform the work described in the Terms of Reference/Scope of Work. The CONTRACTOR shall execute the work with professional competence and in an efficient and workman like manner.

6.2 Except as otherwise provided in the Terms of Reference and the special Conditions of the contract, employ all labours/personnel as required to perform the work.

6.3 Perform all other obligations, work and services which are required by the terms of this contract or which reasonably can be implied from such terms as being necessary for the successful and timely completion of the work.

6.4 Comply with all applicable statutory obligations specified in the contract.

6.5 CONTRACTOR shall be deemed to have satisfied himself before submitting their bid as to the correctness and sufficiency of its bid for the services required and of the rates and prices quoted, which rates and prices shall, except insofar as otherwise provided, cover all its obligations under the contract.

6.6 CONTRACTOR shall be deemed, prior to submitting their bids, to have satisfied themselves about the weather conditions, working culture in the area, socio-political environment, safety & security aspects, law & order situation and law of the land, and obtain for themselves all necessary information as to the risks, contingencies and all other circumstances, which may influence or affect the various obligations under the Contract.

6.7 CONTRACTOR shall give or provide all necessary supervision during the performance of the services and as long thereafter within the warranty period as COMPANY may consider necessary for the proper fulfilling of CONTRACTOR's obligations under the contract.

7.0 GENERAL OBLIGATION OF COMPANY:

COMPANY shall, in accordance with and subject to the terms and conditions of this contract:

7.1 Pay CONTRACTOR in accordance with terms and conditions of the contract.

7.2 Allow CONTRACTOR access, subject to normal security and safety procedures, to all areas as required for orderly performance of the work as specified in the Scope of Works of the contract or work connected therewith.

7.3 Perform all other obligations required of COMPANY by the terms of this contract.

8.0 DUTIES AND POWER/AUTHORITY:

8.1 OIL's site representative/engineer:

The duties and authorities of OIL's site representative/engineer are to act on behalf of OIL for:

- (a) Overall supervision, co-ordination and Project Management at site.
- (b) Proper and optimum utilization of equipment and services.
- (c) Monitoring of performance and progress
- (d) Commenting/countersigning on reports made by the CONTRACTOR's representative at site in respect of works, receipts, consumption etc. after satisfying himself with the facts of the respective cases.
- (e) He shall have the authority, but not obligation at all times and any time to inspect/test/examine/verify any equipment machinery, instruments, tools, materials, personnel, procedures and reports etc. directly or indirectly pertaining to the execution of the work. However this shall not construe to imply an acceptance by the inspector. Hence, the overall responsibility of quality of work shall rest solely with the CONTRACTOR.
- (f) Each and every document emerging from site in support of any claim by the CONTRACTOR has to have the countersignature/comments of the OIL's representative/engineer without which no claim shall be entertained by the OIL.

8.2 CONTRACTOR's representative:

- (a) The CONTRACTOR's representative shall have all the powers requisite for the performance of the Service/Works, subject to holding due authorization from the CONTRACTOR.
- (b) Representative(s) shall liaise with OIL's representative/engineer for the proper co-ordination and timely completion of the works and on any matter pertaining to the works.

- (c) Representative(s) shall extend full co-operation to OIL's representative/inspector/engineer in the manner required by them for supervision/inspection/observation of equipment, material, procedures, performance, reports and records pertaining to works.
- (d) To have complete charge of CONTRACTOR's personnel engaged in the performance of the work and to ensure compliance of rules and regulations and safety practice.

9.0 Personnel to be deployed by contractor:

CONTRACTOR warrants that it shall provide competent, qualified and sufficiently experienced personnel to perform the work correctly and efficiently.

9.1 The CONTRACTOR should ensure that their personnel observe all statutory safety requirement including those prescribed by the COMPANY. Upon COMPANY's written request, CONTRACTOR, entirely at its own expense, shall remove immediately any personnel of the CONTRACTOR determined by the COMPANY to be unsuitable and shall promptly replace such personnel with personnel acceptable to the COMPANY. Replacement personnel should be mobilized within 15 days from the date of issuance of notice without affecting the operation of the COMPANY.

9.2 The CONTRACTOR shall be solely responsible throughout the period of the contract for providing all requirements of their personnel including but not limited to, their transportation to & from Duliajan/field site, enroute/ local boarding, lodging, personal protective gear & medical attention etc. COMPANY shall have no responsibility or liability in this regard.

9.3 However, COMPANY shall provide available medical assistance/facilities to CONTRACTOR's Personnel in case of emergency at its own establishment on chargeable basis.

9.4 CONTRACTOR's key personnel shall be fluent in English language (both writing and speaking).

10.0 PERFORMANCE SECURITY:

10.1 On receipt of notification of award from the COMPANY, the CONTRACTOR shall furnish the Performance Security to COMPANY within 15 (fifteen) days from the date of issue of LOA for an amount specified in the Forwarding Letter and Letter of Award (LOA) as per Proforma- Form and must be in the form of a Bank Draft/Cashier's cheque/Banker's cheque*/ NEFT/RTGS/Electronic fund transfer to designated account of OIL# or Fixed Deposit Receipt (account OIL INDIA LIMITED) or irrevocable Bank Guarantee or irrevocable Letter of Credit (LC) from:

10.2 Any schedule Indian Bank or Any Branch of an International bank situated in India and registered with Reserve Bank of India as scheduled foreign bank in case of domestic CONTRACTOR/service provider, or

10.3 In case of foreign CONTRACTOR/service provider, the bank guarantee can be accepted from any scheduled bank in India or from International bank who has its branch in India registered with Reserve Bank of India.

Any foreign Bank which is not a Scheduled Bank in India, provided the Bank Guarantee issued by such Bank is counter-guaranteed by any Branch situated in India of any Scheduled Bank incorporated in India.

Bank Guarantee issued by a Scheduled Bank of India at the request of some other Non- Schedule Bank of India shall not be acceptable.

- 10.4** Bank Guarantee issued by a Bank, amongst others, must contain the following particulars of such bank:

Full address. Branch

Code.

Code Nos. of the authorized signatory with full name and designation.

Phone Nos., Fax Nos., E-mail address.

- 10.5** The domestic CONTRACTOR/service provider(s) will have to submit the Bank Guarantee from any of the scheduled banks and on non-judicial stamp paper of requisite value as per the Indian Stamp Act, purchased in the name of the issuing banker.

- 10.6** The foreign CONTRACTOR/service provider(s) will submit the Bank Guarantee from Banks of Indian origin situated in their country. In case no such bank of Indian origin is situated in their country, the Bank Guarantee may be submitted from the bankers as specified above.

- 10.7** The Performance Security shall be denominated in the currency of the contract.

- 10.8** The Performance Security specified above must be valid for the entire duration of the Contract and claim period should be valid for a minimum of 03 (three) months beyond the contract period. The Performance Security will be discharged by COMPANY not later than 30 days following its expiry of claim period. In the event of any extension of the Contract period, Bank Guarantee should be extended by CONTRACTOR by the period equivalent to the extended period.

- 10.9** The Performance Security shall be encashed by COMPANY on account of CONTRACTOR's failure to fulfil its obligations under the Contract and/or non-performance/un-satisfactory of the Contractor. Company shall not be required to proof any loss or damage on account of Contractor's non-performance/un-satisfactory performance.

- 10.10** The Performance Security will not accrue any interest during its period of validity or extended validity.

- 10.11** Failure of the successful Bidder to comply with the requirements of clause 10.0 shall constitute sufficient grounds for annulment of the award and forfeiture of the Bid Security. In such an eventuality, action will be initiated as per the Bidding Policy of OIL in vogue.

#Subject to credit in OIL's account within prescribed time

*The validity of Bank Draft/Cashier's/Banker's cheque (as applicable) should not be less than 3 months.

In the event CONTRACTOR fails to honour any of the commitments entered into under this agreement, and/or in the event of termination of the contract under provisions of Integrity Pact and/or in respect of any amount due from the CONTRACTOR to OIL, OIL shall have unconditional option under the guarantee to invoke the above bank guarantee and claim the amount from the bank. The bank shall be obliged to pay the amount to OIL on demand.

- 11.0** **SIGNING OF CONTRACT:**

11.1 The successful bidder is required to sign a formal detailed contract with OIL within a maximum period of 60 days of date of LOA. Until the contract is signed, the LOA as well as GCC & SCC as prescribed in the Tender, shall remain binding amongst the two parties. In the event of failure on the part of the successful Bidder to sign the contract, OIL reserves the right to terminate the LOA issued to the successful Bidder and invoke the Bid Security or the Performance Security if submitted by the successful Bidder. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at www.oil-india.in].

12.0 CLAIMS, TAXES & DUTIES:

12.1 Claims:

CONTRACTOR agrees to pay all claims, taxes and fees for equipment, labour, materials, services and supplies to be furnished by it hereunder and agrees to allow no lien or charge resulting from such claims to be fixed upon any property of COMPANY. COMPANY may, at its option, pay and discharge any liens or overdue charges for CONTRACTOR's equipment, labour, materials, services and supplies under this CONTRACT and may thereupon deduct the amount or amounts so paid from any sum due, or thereafter become due, to CONTRACTOR hereunder.

12.2 Notice of claims:

CONTRACTOR or COMPANY, as the case may be, shall promptly give the other, notice in writing of any claim made or proceeding commenced for which that party is entitled to indemnification under the CONTRACT. Each party shall confer with the other concerning the defense of any such claims or proceeding, shall permit the other to be represented by counsel in defense thereof, and shall not affect settlement of or compromise any such claim or proceeding without the other's written consent.

12.3 Taxes:

12.3.1 CONTRACTOR, unless specified otherwise in the CONTRACT, shall bear all tax liabilities, duties, Govt. levies etc. including GST and customs duty, Corporate and personnel taxes levied or imposed on the CONTRACTOR on account of payments received by it from the COMPANY for the work done under this CONTRACT. It shall be the responsibility of CONTRACTOR to submit to the concerned Indian authorities, the returns and all other concerned documents required for this purpose and to comply in all respects with the requirements of the laws in this regard, in time.

12.3.2 Tax levied on CONTRACTOR as per the provisions of Indian Income Tax Act and any other enactment/rules on income derived/payments received under the contract will be on CONTRACTOR's account.

12.3.3 CONTRACTOR shall be responsible for payment of personal taxes, if any, for all the personnel deployed in India by CONTRACTOR.

12.3.4 The CONTRACTOR shall furnish to the COMPANY, if and when called upon to do so, relevant statement of accounts or any other information pertaining to work done under the contract for submitting the same to the Tax authorities, on specific request from them in accordance with provisions under the law. CONTRACTOR shall be responsible for preparing and filing the return of income etc. within the prescribed time limit to the appropriate authority.

- 12.3.5 Prior to start of operations under the contract, the CONTRACTOR shall furnish the COMPANY with the necessary documents, as asked for by the COMPANY and/or any other information pertaining to the contract, which may be required to be submitted to the Income Tax authorities at the time of obtaining "No Objection Certificate" for releasing payments to the CONTRACTOR.
- 12.3.6 Corporate income tax will be deducted at source from the invoice at the specified rate of income tax as per the provisions of Indian Income Tax Act as may be in force from time to time and COMPANY will issue TDS Certificate to the CONTRACTOR as per the provisions of Income Tax Act.
- 12.3.7 Corporate and personnel taxes on CONTRACTOR shall be the liability of the CONTRACTOR and the COMPANY shall not assume any responsibility on this account.
- 12.3.8 All local taxes, levies and duties, sales tax, octroi, etc. on purchases and sales made by CONTRACTOR shall be borne by the CONTRACTOR.
- 12.3.9 CONTRACTOR shall provide all the necessary compliances/invoice/ documents for enabling OIL to avail Input tax credit benefits in respect of the payments of GST which are payable against the CONTRACT. The CONTRACTOR should provide tax invoice issued under GST legislations for the goods and Services (indicating GST). Payment towards the components of GST shall be released by OIL only against appropriate documents i.e.: Tax Invoice/Bill of entry for availing input tax credit (as applicable).
- 12.3.10 The tax invoices as per above provisions should contain all the particulars as required under the invoicing rules under the GST legislations, including, but not limited to the following:
- (i) Name, Address and the GST Registration Number (under the relevant Tax Rules) of the Service Provider (CONTRACTOR).
 - (ii) Name and Address and GST Registration Number of the Service Receiver (Address of OIL).
 - (iii) Description, Classification and Value of taxable service/goods and the amount of applicable tax (CGST, SGST, IGST, UTGST and cess).
- 12.3.11 In case of imported goods, CONTRACTOR/supplier is required to provide original Bill of Entry or copy of Bill of Entry duly attested by Custom authority.
- 12.3.12 The CONTRACTOR should mention the Place of supply in the invoice raised under GST Law.
- 12.3.13 OIL would not accept any invoice without its GSTIN mentioned on the invoice

Note: CONTRACTOR who is under composition levy of the GST legislation would raise Bill of supply instead of Tax invoice, which will have GSTIN of supplier as well as OIL.

12.4 Goods and Services Tax:

- 12.4.1 "GST" shall mean Goods and Services Tax charged on the supply of material(s) and services. The term "GST" shall be construed to include the Integrated Goods and Services Tax (hereinafter referred to as "IGST") or Central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and Services Tax (hereinafter referred to as "SGST")

or Union Territory Goods and Services Tax (hereinafter referred to as “UTGST”) depending upon the import/ interstate or intrastate supplies, as the case may be. It shall also mean GST compensation Cess, if applicable.

12.4.2 Where the OIL is entitled to avail the input tax credit of GST:

OIL will reimburse the GST to the Supplier of Goods/Services (Service Provider) at actual against submission of Invoices as per format specified in rules/regulation of GST to enable OIL to claim input tax credit of GST paid. In case of any variation in the executed quantities, the amount on which the GST is applicable shall be modified in same proportion. Returns and details required to be filled under GST laws & rules should be timely filed by supplier with requisite details.

12.4.3 Where the OIL is not entitled to avail/take the full input tax credit of GST:

OIL will reimburse GST to the Supplier of Goods/Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of GST subject to the ceiling amount of GST as quoted by the bidder. In case of any variation in the executed quantities (If directed and/or certified by the In-Charge) the ceiling amount on which GST is applicable will be modified on pro-rata basis.

12.4.4 The CONTRACTOR will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the CONTRACTOR shall avail and pass on benefits of all exemptions/concessions available under tax laws. Any error of interpretation of applicability of taxes/duties by the CONTRACTOR shall be to CONTRACTOR's account.

12.4.5 In case of statutory variation in GST, other than due to change in turnover, payable on the contract value during contract period, the Supplier of Goods/Services (Service Provider) shall submit a copy of the 'Government Notification' to evidence the rate as applicable on the Bid due date and on the date of revision.

12.4.6 Beyond the contract period, in case OIL is not entitled for input tax credit of GST, then any increase in the rate of GST beyond the contractual delivery period shall be to Service provider's account whereas any decrease in the rate GST shall be passed on to the OIL.

12.4.7 Beyond the contract period, in case OIL is entitled for input tax credit of GST, then statutory variation in applicable GST on supply and on incidental services, shall be to OIL's account.

12.4.8 Claim for payment of GST/Statutory variation, should be raised within two [02] months from the date of issue of 'Government Notification' for payment of differential (in %) GST, otherwise claim in respect of above shall not be entertained for payment of arrears.

12.4.9 The base date for the purpose of applying statutory variation shall be the Bid Opening Date.

12.4.10 The CONTRACTOR will be liable to ensure to have registered with the respective tax authorities, wherever applicable and to submit self-attested copy of such registration certificate(s) and the CONTRACTOR will be responsible for procurement of material in its own registration (GSTIN) and also to issue its own Road Permit/E-way Bill, if applicable etc.

12.5 Anti-profiteering clause

- 12.5.1 As per Clause 171 of GST Act it is mandatory to pass on the benefit due to reduction in rate of tax or from input tax credit to the consumer by way of commensurate reduction in prices.
- 12.5.2 In case rating of Contractor is negative/black listed after award of work for supply of goods/services, then OIL shall not be obligated or liable to pay or reimburse GST to such vendor/Contractor and shall also be entitled to deduct/recover such GST along with all penalties/interest, if any, incurred by OIL.

13.0 CUSTOMS DUTY, IF APPLICABLE:

- 13.1.1 CONTRACTOR shall be responsible to import the equipment/tools/spares/consumables etc. required for execution of the contract. The CONTRACTOR shall undertake to complete all the formalities as required under the Customs Act/Foreign Trade Policy (FTP) and indemnify OIL from all the liabilities of Customs in this regard.
- 13.1.2 CONTRACTOR will be solely responsible for payment of all applicable Customs Duty and to comply all Rules and Regulations. Total Contract Price/Value is inclusive of all Customs Duty, if not mentioned otherwise elsewhere in the Contract.
- 13.1.3 Above clause is to be read with Customs Duty Clause in SCC, if any.

14.0 INSURANCE:

- 14.1** CONTRACTOR shall at his own expense arrange secure and maintain insurance with reputed insurance companies to the satisfaction of the Company as follows:

Contractor at his cost shall arrange, secure and maintain insurance as may be necessary and to its full value for all such amounts to protect the works in progress from time to time and the interest of Company against all risks as detailed herein. The form and the limit of such insurance, as defined here in together with the under works thereof in each case should be as acceptable to the Company. However, irrespective of work acceptance the responsibility to maintain adequate insurance coverage at all times during the period of Contract shall be that of Contractor alone. Contractor's failure in this regard shall not relieve him of any of his responsibilities & obligations under Contract. All costs on account of insurance liabilities covered under Contract will be to Contractor's account and will be included in Value of Contract. However, the Company may from time to time, during the currency of the Contract, ask the Contractor in writing to limit the insurance coverage risk and in such a case, the parties to the Contract will agree for a mutual settlement, for reduction in value of Contract to the extent of reduced premium amounts. Contractor shall cover insurance with Indian Insurance Companies.

- 14.2** Any deductible set forth in any of the above insurance shall be borne by Contractor.
- 14.3** CONTRACTOR shall require all of his sub-Contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub- Contractors.
- 14.4** All insurance taken out by Contractor or their sub-contractor shall be endorsed to provide that the underwriters waive their rights of recourse on the Company and to the extent of the liabilities assumed by Contractor under this Contract.

14.5 Certificate of Insurance:

Before commencing performance of the CONTRACT, CONTRACTOR shall furnish OIL with certificates of insurance indicating:

- a) Kinds and amounts of insurance as required herein
- b) Details of coverage
- c) Insurance corporation or companies carrying the aforesaid coverage
- d) Effective and expiry dates of policies
- e) That OIL shall be given thirty (30) days written advance notice of any material change in the policy
- f) Waiver of subrogation endorsement has been attached to all policies and
- g) The territorial limits of all policies.

14.6 Contractor shall also inform the Company at least 60 days in advance regarding the expiry cancellation and/or changes in any of such documents & ensure revalidation/renewal, etc., as may be necessary well in time.

14.7 If any of the above policy expire or/are cancelled during the term of this CONTRACT and CONTRACTOR fails for any reason to renew such policies, OIL in no case shall be liable for any loss/damage occurred during the term when the policy is not effective. Furthermore, a penal interest @1% of the Total contract value shall be charged towards not fulfilling of the contractual obligations. Notwithstanding above, should there be a lapse in any insurance required to be taken by the Contractor for any reason whatsoever, loss/damage claims resulting therefrom shall be to the sole account of Contractor.

14.8 Contractor on demand from Company shall furnish the Insurance Policy having detail terms and conditions, with respect to any Certificate of Insurance submitted to the Company.

CONTRACTOR shall, at his own expense, arrange appropriate comprehensive insurance to cover all risks assumed by the CONTRACTOR under this CONTRACT in respect of CONTRACTOR's equipment, tools and any other belongings of the CONTRACTOR and its personnel as well deputed under this CONTRACT during the entire period of their engagement in connection with this CONTRACT including extensions if any. The CONTRACTOR shall also carry adequate insurance cover against damage/loss to third party person/property. OIL will have no liability on this account.

14.9 Principal Assured

The following are to be included as Principal Assured(s) in the Insurance Policies (except in case of Workmen's Compensation/Employer's Liability insurance):

"Oil India Limited, and CONTRACTOR's name (as appearing in the Contract /LOA)".

14.10 Waiver of subrogation:

All insurance policies of the CONTRACTOR with respect to the operations conducted hereunder as set forth in clauses hereof, shall be endorsed by the underwriter in accordance with the following policy wording:

"The insurers hereby waive their rights of subrogation against Oil India Limited or any of their employees or their affiliates and assignees".

14.11 Deductible:

The CONTRACTOR shall take policy with minimum deductible as per IRDA prescribed for the policy(ies). That portion of any loss not covered by insurance provided for in this article solely by reason of deductible provision in such insurance policies shall be to the account of the CONTRACTOR.

14.12 Compliance with Sec 25(1), of “The General Insurance Business (Nationalization) Act 1972”

Section 25(1) of “The General Insurance Business (Nationalization) Act 1972” is reproduced below:

“No person shall take out or renew any policy of insurance in respect of any property in India or any ship or other vessel or aircraft registered in India with an insurer whose principal place of business is outside India save with the prior permission of the Central Government”.

The above requirement of aforesaid Act needs to be complied with by the CONTRACTOR wherever the aforesaid provisions of Act apply, and compliance confirmations submitted.

14.13 Loss Payee Clause:

The Insurance Policies should mention the following in Loss Payee Clause:

“In respect of Insurance claims in which OIL’s interest is involved, written consent of OIL will be required”.

14.14 On account payment to OIL in case of claim

In case any loss or damage happen and where OIL’s interest is involved, OIL reserves the right to recover the loss amount from the CONTRACTOR prior to final settlement of the claim.

14.15 CONTRACTOR shall require all of its SUB-CONTRACTORS to provide such of the foregoing insurance cover as the CONTRACTOR is obligated to provide under this CONTRACT.

14.16 CONTRACTOR shall at all time during the currency of the contract provide, pay for and maintain the following insurance amongst others:

- i) **Workman Compensation and/Employers’ Liability Insurance:** Workmen's compensation and employer's liability insurance as required by the laws of the country of origin of the employee.
- ii) **Commercial General Liability Insurance:** Commercial General Public Liability Insurance covering liabilities including contractual liability for bodily injury, including death of persons, and liabilities for damage of property. This insurance must cover all operations of CONTRACTOR required to fulfil the provisions under this Contract.
- iii) **Comprehensive General Automotive Liability:** Automobile Public Liability Insurance covering owned, non-owned and hired automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits shall be governed by Indian Insurance Regulations.
- iv) **Carrier’s Legal Liability Insurance:** Carrier’s Legal Liability Insurance in respect of all CONTRACTOR’s items to be transported by the CONTRACTOR to the site of

work, for physical loss or destruction of or damage to goods or merchandise, while in transit.

- v) **Public Liability Act Policy:** Public Liability Act Policy covering the statutory liability arising out of accidents occurring during the currency of the contract due to handling hazardous substances as provided in the Public Liability Insurance Act 1991 and the Rules framed there under.
- vi) **Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):** CONTRACTOR shall, ensure that all his/its personnel deployed under this contract have obtained additional insurance coverage under the Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) through the participating banks and submit the proof of such insurance coverage to the satisfaction of OIL.
- vii) CONTRACTOR's equipment used for execution of the work hereunder shall have an insurance cover with a suitable limit (as per international standards).
- viii) **Any other insurance policy set forth in the SCC**

Note: An undertaking by the service provider has to be mandatorily provided during the Mobilization time that they have taken all the Insurance provisions as per the contract and as the Law and Insurance Regulation.

15.0 LIABILITY:

- 15.1** Except as otherwise expressly provided herein, neither COMPANY nor its servants, agents, nominees, CONTRACTORS, or sub-CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss of or damage to the property of the CONTRACTOR and/or their CONTRACTORS or sub- CONTRACTORS, irrespective of how such loss or damage is caused and even if caused by the negligence of COMPANY and/or its servants, agent, nominees, assignees, CONTRACTORS and sub-CONTRACTORS.
- 15.2** The CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such loss or damage and any suit, claim or expense resulting there from. Neither COMPANY nor its servants, agents, nominees, assignees, CONTRACTORS, sub-CONTRACTORS shall have any liability or responsibility whatsoever for injury to, illness, or death of any employee of the CONTRACTOR and/or of its CONTRACTORS or sub-CONTRACTOR irrespective of how such injury, illness or death is caused and even if caused by the negligence of COMPANY and/or its servants, agents nominees, assignees, CONTRACTORS and sub-CONTRACTORS. CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such liabilities and any suit, claim or expense resulting there from.
- 15.3** The CONTRACTOR hereby agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against COMPANY and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for loss or damage to the equipment of the CONTRACTOR and/or its sub- CONTRACTORS and/or their employees when such loss or damage or liabilities arises out

of or in connection with the performance of the contract limited to the CONTRACTOR's liabilities agreed to under this Contract.

- 15.4** The CONTRACTOR hereby further agrees to waive its right of recourse and agrees to cause its underwriters to waive their right of subrogation against COMPANY and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for injury to, illness or death of any employee of the CONTRACTOR and of its CONTRACTORS, sub-CONTRACTORS and/or their employees when such injury, illness or death arises out of or in connection with the performance of the contract limited to the CONTRACTOR's liabilities agreed to under this Contract.
- 15.5** Except as otherwise expressly provided herein, neither CONTRACTOR nor its servants, agents, nominees, CONTRACTORS or sub-CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss or damage to the property of the COMPANY and/or their CONTRACTORS or sub- CONTRACTORS, irrespective of how such loss or damage is caused and even if caused by the negligence of CONTRACTOR and/or its servants, agents, nominees, assignees, CONTRACTORS and sub-CONTRACTORS. The COMPANY shall protect, defend, indemnify and hold harmless CONTRACTOR from and against such loss or damage and any suit, claim or expense resulting there from.
- 15.6** Except as otherwise expressly provided herein, neither CONTRACTOR nor its servants, agents, nominees, assignees, CONTRACTORS, sub-CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for injury or illness, or death of any employee of the COMPANY and/or of its CONTRACTORS or sub-CONTRACTORS irrespective of how such injury, illness or death is caused and even if caused by the negligence of CONTRACTOR and/or its servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS. COMPANY shall protect, defend indemnify and hold harmless CONTRACTOR from and against such liabilities and any suit, claim or expense resulting there from.
- 15.7** The COMPANY agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against CONTRACTOR and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for loss or damage to the equipment of COMPANY and/or its CONTRACTORS or sub-CONTRACTORS when such loss or damage or liabilities arises out of or in connection with the performance of the contract.
- 15.8** The COMPANY hereby further agrees to waive its right of recourse and agrees to cause its underwriters to waive their right of subrogation against CONTRACTOR and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for injury to, illness or death of any employee of the COMPANY and of its CONTRACTORS, sub-CONTRACTORS and/or their employees when such injury, illness or death arises out of or in connection with the performance of the Contract.

16.0 **LIMITATION OF LIABILITY:**

- a) Notwithstanding any other provisions herein to the contrary, except only in cases of willful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated

Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract.

- b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights.
- c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.

17.0 LIABILITY OF UNION GOVERNMENT OF INDIA:

It is expressly understood and agreed upon by and between CONTRACTOR and OIL INDIA LIMITED, and that OIL INDIA LIMITED is entering into this agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that Union of India is not a party to this agreement and has no liabilities, obligations or rights, whatsoever hereunder. It is expressly understood and agreed that OIL INDIA LIMITED is an independent legal entity with power and authority to enter into contracts solely on its own behalf under the applicable laws of India and general principles of the Contract law. The bidder/CONTRACTOR expressly agrees, acknowledges and understands that OIL INDIA LIMITED is not an agent, representative or delegate of the Union of India. It is further understood and agreed that Union of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the contract. Accordingly, bidder/ CONTRACTOR hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Union of India arising out of this contract and covenants not to sue the Union of India as to any manner, claim, cause of action or thing whatsoever arising of or under this agreement.

18.0 CONSEQUENTIAL DAMAGE:

Except as otherwise expressly provided, neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the contract, including but without limitation, to loss or profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub-CONTRACTORS.

19.0 RISK PURCHASE:

In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk & cost and the difference in cost shall be borne by the CONTRACTOR. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR.

20.0 INDEMNITY AGREEMENT:

20.1 Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORS and sub- CONTRACTORS or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

20.2 Except as provided hereof COMPANY agrees to protect, defend, indemnify and hold CONTRACTOR harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of COMPANY's employees, agents, CONTRACTORS and sub- CONTRACTORS or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

21.0 INDEMNITY APPLICATION:

The indemnities given herein above, whether given by COMPANY or CONTRACTOR shall be without regard to fault or to the negligence of either party even though said loss, damage, liability, claim, demand, expense, cost or cause of action may be caused, occasioned by or contributed to by the negligence, either sole or concurrent of either party.

22.0 ROYALTY PATENTS:

Each party shall hold harmless and indemnify the other from and against all claim and proceedings for or on account of any patent rights, design, trade mark or other protected rights arising from any use of materials, equipment, processes, inventions and methods, which have not been imposed on the attending party by the terms of the contract or the specifications forming part thereof.

23.0 WARRANTY AND REMEDY OF DEFECTS:

23.1 CONTRACTOR warrants that they shall perform the work in a first class, workmanlike, and professional manner and in accordance with their highest degree of quality, efficiency and current state of the art technology/industry practices and in conformity with all specifications, standards and drawings set forth or referred to in the Terms of Reference and with instructions and guidance, which COMPANY may, from time to time, furnish to the CONTRACTOR.

23.2 Should COMPANY discover at any time during the tenure of the Contract or till the Unit/equipment/tools are demobilized from site or base camp (if applicable) that the work does not conform to the foregoing warranty, CONTRACTOR shall after receipt of notice from COMPANY, promptly perform any and all corrective work required to make the services conform to the Warranty. Such corrective Work shall be performed entirely at CONTRACTOR's own expenses. If such corrective Work is not performed within a reasonable time, the COMPANY, at its option may have such remedial Work performed by others and charge the cost thereof to CONTRACTOR subject to a maximum of the contract

value payable for the defective work which needs corrective action which the CONTRACTOR must pay promptly. In case CONTRACTOR fails to perform remedial work, or pay promptly in respect thereof, the performance security shall be forfeited.

24.0 SUBCONTRACTING/ASSIGNMENT:

24.1 CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract.

24.2 Consequent upon of placement of contract, if successful bidder(s)(other than Micro/Small Enterprise) is procuring materials/services from their sub-vendor, who is a Micro or Small Enterprise registered with District Industry Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of MSME with prior consent in writing of the purchasing authority/Engineer in Charge the details like Name, Registration No., Address, ContactNo., details of material and value of procurement made, etc. of such enterprises shall be furnished by the CONTRACTOR at the time of submission of invoice/bill.

25.0 RECORDS, REPORTS AND INSPECTION:

The CONTRACTOR shall, at all times during the currency of the contract, permit the COMPANY and its authorized employees and representatives to inspect all the Workperformed and to witness and check all the measurements and tests made in connection with the said work. The CONTRACTOR shall keep an authentic, accurate history and logs including safety records of each service item with major items consumed, which shall be open at all reasonable times for inspection by the COMPANY's designated representatives and its authorized employees. The CONTRACTOR shall provide the COMPANY's designated representatives with a daily written report, on form prescribed by the COMPANY showing details of operations during the preceding 24 hours and any other information related tothe said services requested by the COMPANY whenever so requested. The CONTRACTOR shall not, without COMPANY's written consent allow any third person(s) access to the said information or give out to any third person information in connection therewith.

26.0 CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION:

26.1 CONTRACTOR shall not, without COMPANY's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing pattern, sample or information furnished by or on behalf of COMPANY in connection therewith, to any person other than a person employed by CONTRACTOR in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only, as may be necessary for purposes of such performance with prior permission from COMPANY. However, nothing hereinabove contained shall deprive the CONTRACTOR of the right to use or disclose any information which is:

- a) possessed by the CONTRACTOR, as evidenced by the CONTRACTOR's written records, before receipt thereof from the COMPANY which however the CONTRACTOR shall immediately inform to COMPANY; or

- b) required to be disclosed by the CONTRACTOR pursuant to an order of a court of competent jurisdiction or other governmental agency having the power to order such disclosure, provided the CONTRACTOR uses its best efforts to provide timely notice to COMPANY of such order to permit COMPANY an opportunity to contest such order subject to prior permission from COMPANY.

26.2 CONTRACTOR shall not, without COMPANY's prior written consent, make use of any document or information except for purposes of performing the contract.

26.3 Any document supplied to the CONTRACTOR in relation to the contract other than the Contract itself remain the property of COMPANY and shall be returned (in all copies) to COMPANY on completion of CONTRACTOR's performance under the Contract if so required by COMPANY.

26.4 During the currency of the Contract, COMPANY and its employees, agents, other CONTRACTORS, sub-CONTRACTORS (of any tier) and their employees etc. may be exposed to certain confidential information and data of the CONTRACTOR. Such information and data held by the COMPANY, its employees, agents, other CONTRACTORS, sub- CONTRACTORS (of any tier) and their employees in the strictest Confidence and shall not be disclosed to any other party except on a need to know basis.

However, the above obligation shall not extend to information which:

- i) is, at the time of disclosure, known to the public which CONTRACTOR shall immediately inform COMPANY;
- ii) is lawfully becomes at a later date known to the public through no fault of CONTRACTOR subject to CONTRACTOR's undertaking that no information has been divulged by them to the public;
- iii) is lawfully possessed by CONTRACTOR before receipt thereof from COMPANY which should be immediately informed to COMPANY;
- iv) is developed by CONTRACTOR independently of the information disclosed by COMPANY which should be shared with the COMPANY;
- v) CONTRACTOR is required to produce before competent authorities or by court order subject to prior permission from COMPANY;

27.0 REMUNERATION AND TERMS OF PAYMENT:

27.1 COMPANY shall pay to the CONTRACTOR during the term of the Contract the amount due from time to time calculated according to the rates of payment set and in accordance with other provisions hereof. No other payments shall be due from COMPANY unless specifically provided for in the Contract. All payments will be made in accordance with the terms hereinafter described.

27.2 Request for payment/part payment to third party i.e. other than the party on whom the contract has been awarded will not be entertained by OIL under any circumstances.

27.3 MANNER OF PAYMENT: All payments due by COMPANY to CONTRACTOR hereunder shall be made at CONTRACTOR's designated bank. Bank charges, if any will be on account of the CONTRACTOR.

27.4 Payment of any invoices shall not prejudice the right of COMPANY to question the validity of any charges therein, provided COMPANY within one year after the date of payment

shall make and deliver to CONTRACTOR written notice of objection to any item or items the validity of which COMPANY questions.

- 27.5** INVOICES: Mobilization charges will be invoiced only upon completion of mobilization as certified by COMPANY representative and CONTRACTOR is ready at site for starting the services/operation. Payment of mobilization charges shall be made within 45 days following the date of receipt of undisputed invoices by COMPANY.
- 27.6** CONTRACTOR shall send invoice to COMPANY on the day following the end of each month for all daily or monthly charges due to the CONTRACTOR.
- 27.7** CONTRACTOR will submit 02 (Two) sets of all invoices duly super scribed 'Original' and 'copy' as applicable to the COMPANY for processing payment. Separate invoices for the charges payable under the contract shall be submitted by the CONTRACTOR for foreign currency and Indian currency.
- 27.8** Payment of monthly invoices, if undisputed, shall be made within 30 days following the date of receipt of invoice by COMPANY.
- 27.9** COMPANY shall within 30 days of receipt of the invoice notify the CONTRACTOR of any item under dispute, specifying the reasons thereof, in which event, payment of the disputed amount may be withheld until settlement of the dispute, but payment shall be made of any undisputed portion on or before the due date. This will not prejudice the COMPANY's right to question the validity of the payment at a later date as envisaged in clause no. 27.4 above.
- 27.10** The acceptance by CONTRACTOR of part payment on any billing not paid on or before the due date shall not be deemed a waiver of CONTRACTOR's rights in any other billing, the payment of which may then or thereafter be due.
- 27.11** Payment of Final demobilization charges shall be made if applicable within 45 days on receipt of invoice by COMPANY accompanied by the following documents from the CONTRACTOR:
- a) Audited account up to completion of the Contract.
 - b) Tax audit report for the above period as required under the Indian Tax Laws.
 - c) Documentary evidence regarding the submission of returns and payment to taxes for the expatriate personnel engaged by the CONTRACTOR or by its sub- CONTRACTOR.
 - d) Proof of re-export of all items including the unutilized spares and consumables (excepting consumables consumed during the contract period) and also cancellation of re-export bond if any.
 - e) Any other documents as required by applicable Indian Laws.

In case, no demobilization charges are payable, the documents mentioned above will have to be submitted by the CONTRACTOR before release of the final payment by the COMPANY. A certificate from Chartered Accountant on (a), (b) & (c) above will suffice.

- 27.12** CONTRACTOR shall maintain complete and correct records of all information on which CONTRACTOR's invoice are based upto 02 (two) years from the date of last invoice. Such records shall be required for making appropriate adjustments or payments by either party in case of subsequent audit query/objection.

28.0 PAYMENT OF COMMISSION/FEE/REMUNERATION OF INDIAN AGENT /CONSULTANT/REPRESENTATIVE/RETAINER/ASSOCIATE OF FOREIGN PRINCIPAL (APPLICABLE IN ICB TENDERS ONLY):

The Commission/fee/remuneration of the Indian agent/ consultant/ associate/ representative/retainer, if any, will be paid within 30 days of the payment of invoice made to the CONTRACTOR, The amount of commission/ fee/remuneration as a percentage of invoice value as per contract provisions will be deducted by COMPANY/OIL from the monthly invoices of the CONTRACTOR and paid to the Indian agent/ consultant/ representative/retainer/associate.

29.0 DETAILS OF STATUTORY PAYMENTS LIKE EPF AND ESI ETC.

Wherever applicable, the CONTRACTOR (including those engaging ‘International Workers’) shall have itself registered under Employees’ Provident Fund and Miscellaneous Provisions Act, 1952 and Employees’ State Insurance Act, 1948 and follow the relevant statutory provisions including Rules made there-under concerning contractual workers.

The CONTRACTOR shall be required to submit the following documents/details to the Corporation:

(i) Copy of PF-ECR duly stamped by the designated Bank, alongwith a print of the digitally signed PDF data sheet of the ECR, as proof of payment, each month, details of this PDF data sheet shall be verified by the appropriate authority (i.e. Payment Making Authority) in the COMPANY from the official website of EPFO (<http://www.epfindia.gov.in>).

- (a) Copy of the online challan endorsed/stamped by the designated bank as proof of receipt of payment towards monthly contribution of ESI contribution.
- (b) Copy of Return of contribution in respect of ESI for each contribution period of the six months i.e. for the contribution period ended 30th Sept and the contribution period ended 31st March.

(iii) As an Annexure to each EPF-ECR and ESI Challan(s), CONTRACTOR shall also furnish the following Certificates:

- 1) The furnished information is correct to the best of his knowledge.
- 2) In case any discrepancies or irregularities is/are noticed in this undertaking, then OIL is free to inform the PF/ESIC Authorities.
- 3) Before the completion of contract, CONTRACTOR shall serve one-month notice to all his contractual workers, informing that their services will be terminated.
- 4) Within one month on completion/expiry of the contract, CONTRACTOR shall pay all the dues/terminal dues such as leave with wages, bonus (if applicable), Gratuity (if applicable), to all his contractual workmen, failing which CONTRACTOR’s Bank Guarantee/Security Deposit may be withheld by OIL.

COMPANY may verify the deposit of statutory contribution made by the CONTRACTORs with the EPFO/ESI authorities, where deemed necessary. However, before making payment of the last bill/invoice of the CONTRACTOR, the COMPANY may verify the details/status of the payment towards EPF/ESI made by the CONTRACTOR from the authorities/official website of EPF/ESI (i.e. <http://www.epfindia.gov.in> and <http://www.esic.in>). In case the information furnished by the CONTRACTOR is found to be incorrect the COMPANY shall take appropriate action against the CONTRACTOR in accordance with law.

The CONTRACTOR agrees and undertakes to indemnify OIL for any liabilities arising out of declarations made by him in future on violation or provisions of the EPF Act 1952 and ESI Act 1948.

30.0 TIMELY MOBILISATION AND LIQUIDATED DAMAGES:

- a) Time is the essence of this Contract. If the CONTRACTOR fails to mobilize and deploy the required manpower/equipment and/or fails to commence the operation within the period specified as specified under mobilization clause under SCC, OIL shall have, without prejudice to any other right or remedy in law or contract including sub clause (b) below, the right to terminate the contract.
- b) If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the Contract Price.
- c) The parties agree that the sum specified above is not a penalty but a genuine pre- estimate of the loss/damage which will be suffered by OIL on account of delay on the part of the CONTRACTOR and the said amount will be payable without proof of actual loss or damage caused by such delay.
- d) LD will be calculated on the basis of Total Contract value [(if not specified otherwise in SCC] excluding duties and taxes, where such duties/taxes have been shown separately in the contract. However, the applicable GST on the LD shall have to be borne by the CONTRACTOR. Accordingly, the liquidated damages shall be recovered from the CONTRACTOR along with applicable GST.

31.0 FORCE MAJEURE:

In the event of either party being rendered unable by 'Force Majeure' to perform any obligation required to be performed by them under the contract, the relative obligation of the party affected by such 'Force Majeure' will stand suspended as provided herein. The term force majeure as employed herein shall mean Acts of God such as earthquake, hurricane, typhoon, flood, volcanic activity etc.; war (declared/undeclared); riot, revolts, rebellion, terrorism, sabotage by persons other than the CONTRACTOR's Personnel; fires, explosions, ionising radiation or contamination by radio-activity or noxious gas, if not caused by CONTRACTOR's fault; declared epidemic or disaster; acts and regulations of respective Govt. of the two parties, namely the COMPANY and the CONTRACTOR and civil commotions, lockout not attributable to the CONTRACTOR.

Upon occurrence of such cause, the party claiming that it has been rendered unable as aforesaid thereby, shall notify the other party in writing within 72 (Seventy Two) hours of the alleged beginning and ending thereof, giving full particulars and satisfactory evidence in support of its claim.

Should 'force majeure' condition as stated above occurs and should the same be notified within 72 (Seventy two) hours after its occurrence the 'force majeure' rate (if specified in the SCC of the Contract) shall apply for the first 15 (fifteen) days for each such occasion.

Either party shall have the right to terminate the Contract if such 'force majeure' conditions continue beyond successive 60 (Sixty) days [or exclusively mentioned in the SCC of the Contract] with prior written notice of 15 days, provided termination of the Contract does not result into safety hazard to the life and property on account of withdrawal of operations or the operation is at critical stage. COMPANY shall have the absolute right to decide whether any safety hazard exists or operation is at critical position and decision of the COMPANY shall binding upon the CONTRACTOR.

Should either party decide not to terminate the Contract even under such condition, no payment would apply after expiry of fifteen (15) days force majeure period. [or exclusively mentioned in the SCC of the Contract]

Time for performance of the relative obligation suspended by Force Majeure shall then stand extended by the period for which such cause lasts.

If however, relative obligation of the party affected by such 'Force Majeure' is limited to part of the obligation(s), the contract shall not be terminated and the parties shall continue to perform their respective obligations, which are not affected by the 'force majeure' condition, provided the obligations affected by the 'force majeure' do not preclude the parties in performing the obligations not affected by such conditions.

32.0 SET-OFF:

Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL).

33.0 WITHHOLDING:

COMPANY may withhold or nullify the whole or any part of the amount due to CONTRACTOR, after informing the CONTRACTOR of the reasons in writing, on account of subsequently discovered evidence in order to protect COMPANY from loss on account of:

33.1 For non-completion of jobs assigned as per Scope of Work/Terms of Reference.

33.2 Defective work not remedied by CONTRACTOR.

33.3 Claims by COMPANY's recognized sub-CONTRACTOR of CONTRACTOR or others filed or on the basis of reasonable evidence indicating probable filing of such claims against CONTRACTOR.

33.4 Failure of CONTRACTOR to pay or provide for the payment of salaries/ wages, contributions, taxes or enforced savings with-held from wages etc. with respect to personnel engaged by the CONTRACTOR.

33.5 Failure of CONTRACTOR to pay the cost of removal of unnecessary debris, materials, tools, or machinery.

33.6 Any failure by CONTRACTOR to fully reimburse COMPANY under any of the indemnification provisions of this Contract. If, during the progress of the work CONTRACTOR shall allow any indebtedness to accrue for which CONTRACTOR, under any circumstances in the opinion of COMPANY, may be primarily or contingently liable or ultimately responsible and CONTRACTOR shall, within five days after demand is made by COMPANY, fail to pay and discharge such indebtedness, then COMPANY may during the period for which such indebtedness shall remain unpaid, with-hold from the amounts due to CONTRACTOR, a sum equal to the amount of such unpaid indebtedness.

33.7 Withholding will also be effected on account of the following:

- i) Order issued by a Court of Law or statutory authority in India.
- ii) Income-tax deductible at source according to law prevalent from time to time in the country.
- iii) Any obligation of CONTRACTOR which by any law prevalent from time to time to be discharged by COMPANY in the event of CONTRACTOR's failure to adhere to such laws.
- iv) Any payment due from CONTRACTOR in respect of unauthorised imports.

When all the above grounds for withholding payments are removed, payment shall thereafter be made for amounts so with-held.

33.8 COMPANY reserves the right to disburse or deposit the amount so withheld to the concerned person(s) or agency or government authority, as the case may be, besides nullifying such amount on account of loss suffered by the COMPANY against 33.2, 33.3, 33.6 & 33.7 above.

34.0 APPLICABLE LAWS:

The Contract shall be deemed to be a Contract made under, governed by and construed in accordance with the laws of India for the time being in force and shall be subject to the sole and exclusive jurisdiction of Courts situated in Dibrugarh (or the Place where the contract is executed) and Principal Bench of Gauhati High Court (or the High Court under whose territorial jurisdiction, the place of execution of contract falls).

This Agreement including all matter connected with this Agreement, shall be governed by the laws of India (both substantive and procedural) for the time being in force and shall be subject to exclusive jurisdiction of Courts, mentioned hereinabove. Foreign companies, operating in India or entering into Joint ventures in India, shall also be governed by the laws of India and shall be subject to sole and exclusive jurisdiction of above Courts.

The CONTRACTOR shall ensure full compliance of various Indian Laws and Statutory Regulations, as stated below, to the extent applicable, as stated below, but not limited to, in force from time to time and obtain necessary permits/licenses etc. from appropriate authorities for conducting operations under the Contract:

- a) The Mines Act 1952
- b) The Oil Mines Regulations, 1984
- c) The Employees' Compensation Act, 1923
- d) The Code of Wages, 2019

- e) The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under
- f) The Employees Pension Scheme, 1995
- g) The Interstate Migrant Workmen Act., 1979 (Regulation of employment and conditions of service).
- h) The Employees Provident Fund and Miscellaneous Provisions Act, 1952
- i) Goods and Service Tax Act
- j) Customs & Excise Act & Rules
- k) Factories Act, 1948
- l) Industrial Disputes Act, 1947
- m) Payment of Gratuity Act, 1972
- n) Environmental Protection Act, 1986 & other pollution control Acts.

Note: The above Acts are only indicative and not exhaustive. The Acts shall include the rules and regulations framed thereunder.

35.0

LABOUR LAWS:

- i) CONTRACTOR shall comply with the provisions of various labour related laws, including but not limited to the Code of Wages, 2019, Employee Provident Fund and Miscellaneous Provisions Act 1952, COMPANY's Liability Act 1938, Employees' Compensation Act 1923, Industrial Disputes Act 1947, the Maternity Benefit Act 1961 and Contract Labour (Regulation and Abolition) Act 1970, Employment of Children Act 1938, Employees' State Insurance Act, 1948 or any modifications/amendment thereof or any other law relating thereto and rules made there under from time to time.
- ii) No Labour below the age of eighteen [18] years shall be employed on the work.
- iii) CONTRACTOR shall not pay less than what is provided under law to labourers engaged by him on the work.
- iv) CONTRACTOR shall at his expense comply with all labour laws and keep the COMPANY indemnified in respect thereof.
- v) CONTRACTOR shall pay equal wages for men and women in accordance with applicable Labour laws.
- vi) If the CONTRACTOR is covered under the Contract Labour (Regulation and Abolition) Act, he shall obtain a license from licensing authority [i.e. office of the Labour Commissioner] by payment of necessary prescribed fee and the deposit, if any, before starting the work under the Contract. Such fee/deposit shall be borne by the CONTRACTOR.
- vii) CONTRACTOR must obtain the PF Code from the concerned PF Authority under Employees Provident Fund and Miscellaneous Provisions Act, 1952. Similarly, CONTRACTOR must obtain ESI Code under Employees State Insurance Act.
- viii) CONTRACTOR being the employer of the labours/personnel to be engaged under the contract shall be liable to pay gratuity to the labours/personnel as per the provision of the Payment of Gratuity Act, 1972 and accordingly, shall keep the COMPANY indemnified in respect thereof. If however, COMPANY requires to pay gratuity to such labour(s) as per the direction of the competent authority under the Act, COMPANY shall

recover such amount from the outstanding dues payable to the CONTRACTOR under the contract or any other contract(s).

ix) CONTRACTOR shall furnish to Engineer in Charge the distribution return of the number & description, by trades of the work people employed on the works. CONTRACTOR shall also submit on the 4th & 19th of every month to Engineer in Charge a true statement showing in respect of the 2nd half of the preceding month & the 1st half of the current month (1) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and (2) the number of female workers who have been allowed Maternity Benefit as provided in the Maternity Benefit Act 1961 on Rules made there under and the amount paid to them.

x) Engineer in Charge shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act 1970 have the power to deduct from the money due to the CONTRACTOR any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the Contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by the terms of the Contract or non-observance of the said regulations.

xi) The CONTRACTOR shall indemnify the COMPANY against any payments to be made under and for the observance of the provisions of the aforesaid acts without prejudice to his right to obtain indemnity from his sub-CONTRACTOR.

36.0 STATUTORY REQUIREMENTS:

During the tenure of this CONTRACT nothing shall be done by the CONTRACTOR in contravention of any law, act and/or rules/regulations, thereunder or any amendment.

37.0 GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) GUIDELINES:

37.1 It will be solely the CONTRACTOR's responsibility to fulfil all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. Ensure that all sub-CONTRACTORS hired by CONTRACTOR comply with the same requirement as the CONTRACTOR himself and shall be liable for ensuring compliance all HSE laws.

37.2 It will be entirely the responsibility of the Contractor/his Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager/Safety Officer/ Engineer/Official/Supervisor/Junior Engineer for safe operation.

37.3 Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.

37.4 Any compensation arising due to accident of the Contractor's personnel while carrying out the job, will be payable by the contractor.

37.5 When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company shall have the right to direct the contractor to cease work until the non-compliance is corrected.

38.0 POLLUTION AND CONTAMINATION:

The CONTRACTOR shall be liable for all surface and sub-surface pollution to the extent caused by CONTRACTOR and resulting from CONTRACTOR's operation/service or spillage or dumping of solvents/additive substances or pollutants, which the CONTRACTOR brings to the Site for use in connection with Work to be performed under this Contract.

Notwithstanding anything to the contrary contained herein, it is agreed that except on the ground of willful misconduct or criminal misconduct, COMPANY shall release, indemnify and hold CONTRACTOR and its sub-CONTRACTORS harmless from any and all claims, judgments, losses, expenses and any costs related thereto (including but not limited to Court costs and "Attorney's fees") for:

- a) Damage to or loss of any reservoir or producing formation; and/ or
- b) Damage to or loss of any well; and/or
- c) Any other subsurface damage or loss; and/ or
- d) Any property damage or loss or personal injury or death arising out of or in connection with a blowout, fire explosion and loss of well control regardless of cause.

39.0 STATUTORY VARIATION/NEWLY ENACTED LAW:

39.1 All duties, taxes except otherwise specified in the Contract as applicable on the closing date of bid submission as per relevant acts and rules shall be in CONTRACTOR's account. Variation in case of custom duty on CIF value declared by the bidder shall be to COMPANY account.

39.2 In the event of introduction of any new legislation or any amendment or enforcement of any Act or Law, rules or regulations of Government of India or State Government(s) or Public Body, which becomes effective after the date of submission of Price Bid or revised price bid, if any, for this CONTRACT and which results in increased/decreased cost of the works under the CONTRACT through increased/decreased liability of taxes and/or duties, required to be paid by the CONTRACTOR, (other than personnel and Corporate taxes), the Parties shall agree to a revision in pricing to reflect such change subject to the production of documentary proof to the satisfaction of the COMPANY/CONTRACTOR as applicable to the extent which directly is attributable to such introduction of new legislation or change or amendment as mentioned above and adjudication by the competent authority (applicable when disputed by COMPANY) & the courts wherever levy of such taxes/duties are disputed by COMPANY/CONTRACTOR.

39.3 Any increase in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date during the extended period will be to the CONTRACTOR's account, where delay in completion/mobilization period is attributable to the CONTRACTOR. However, any decrease in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date will be to COMPANY's account.

39.4 The Contract Price and other prices given in the Schedule of Prices are based on the applicable tariff as indicated by the CONTRACTOR in the Schedule of Prices. In case this information subsequently proves to be wrong, incorrect or misleading, COMPANY will have no liability to reimburse/pay to the CONTRACTOR the excess duties, taxes, fees, if any finally levied/imposed by the concerned authorities. However, in such an event, COMPANY will have the right to recover the difference in case the rate of duty/tax finally assessed is on the lower side.

39.5 Notwithstanding the provision contained in Clause-39.1 to 39.4 above, the COMPANY shall not bear any liability in respect of:

- i. Personal taxes on the personnel deployed by CONTRACTOR, his sub-CONTRACTOR/sub-sub-CONTRACTORS and Agents etc.
- ii. Corporate taxes and Fringe benefit tax in respect of CONTRACTOR and all of their sub-CONTRACTORS, agents etc.
- iii. Other taxes & duties including Customs Duty and GST in addition to new taxes etc. in respect of sub-CONTRACTORS, vendors, agents etc. of the CONTRACTOR.
- iv. Any liability on the CONTRACTOR, which was accrued under the old law or contract, which the CONTRACTOR is obligated to pay either to the COMPANY or to the Government Authority.

39.6 In order to ascertain the net impact of the amendment/ revisions/enactment of various provisions of taxes/duties, the CONTRACTOR is liable to provide following disclosure to COMPANY:

- i. Details of each of the input services used in relation to providing service to COMPANY including estimated monthly value of input service and GST tax amount.
- ii. Details of Inputs (material/consumable) used/required for providing service to COMPANY including estimated monthly value of input and GST paid/payable on purchase of inputs.

39.7 The above provisions would be applicable only in case of variation in rate of taxes and duties on supply of services to OIL and not applicable on taxes and duties on input (goods and services) towards such services.

39.8 Any claim or reduction on account of change in law shall be accompanied with undertaking that the provisions of anti-profiteering clause under GST Act have been complied with.

40.0 SEVERABILITY:

Should any provision of this agreement be found to be invalid, illegal or otherwise not enforceable by any court of law, such finding shall not affect the remaining provisions hereto and they shall remain binding on the parties hereto.

41.0 Commission of misconduct/submission of fraudulent document by the bidder/contractor and Banning thereof:

The information and documents furnished by the bidder/CONTRACTOR in respect of the tender/contract are accepted by COMPANY to be true and genuine. However, if it comes to the notice of the COMPANY anytime either during the pendency of the tender or after award of the contract or after completion the contract that a Bidder/CONTRACTOR furnished fraudulent document/false information in relation to the subject tender/contract

or committed any misconduct, appropriate action shall be taken against the Bidder/CONTRACTOR for debarment/banning of the bidder/CONTRACTOR from participating in any future tender of the COMPANY in terms of the COMPANY's Banning Policy, 2017 besides making the CONTRACTOR liable for other penal action including termination of ongoing contract(s) at his/her risk and peril. In such event, the Bid Security/Performance Security in respect of ongoing contract(s) shall be forfeited by the COMPANY.

42.0 SETTLEMENT OF DISPUTES:

42.1 Arbitration (Applicable for Suppliers/CONTRACTORs other than PSU and MSME):

1. Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, the same shall be referred to Arbitration as provided hereunder:
2. A party wishing to commence arbitration proceeding shall invoke Arbitration Clause by giving 30 days notice to the other party. The notice invoking arbitration shall specify all the points of dispute with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. If the claim is in foreign currency, the claimant shall indicate its value in Indian Rupee for the purpose of constitution of the arbitral tribunal.
3. It is agreed and undertaken by the Parties that irrespective of country of origin of the CONTRACTOR, the arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996 and under no circumstances, the proceedings shall be construed as International Arbitration.
4. The number of arbitrators and the appointing authority will be as under:

5. The parties that shall appoint those persons	Claim amount (excluding claim for interest and counter claim, if any)	Number of Arbitrator	Appointing Authority	agree they only as
	Upto Rs.25.00 Lakh	Not applicable	Not applicable	
	Above Rs.25.00 Lakh Upto Rs.25 Crore	Sole Arbitrator	OIL	
	Above Rs. 25 Crore	3 Arbitrators	One Arbitrator by each party and the 3 rd Arbitrator, who shall be the presiding Arbitrator, by the two Arbitrators.	

arbitrators who accept the conditions of the arbitration clause. No person shall be appointed as Arbitrator or Presiding Arbitrator who does not accept the conditions of the arbitration clause.

6. If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left if both parties consent for the same; otherwise, he shall proceed de novo.
7. Parties agree and undertake that neither shall be entitled for any pre-reference or pendente-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void.
8. The arbitral tribunal shall complete the proceedings, make and publish the award within time stipulated in the Arbitration and Conciliation Act, 1996(as amended).
9. If after commencement of the arbitration proceedings, the parties agree to settle the dispute mutually or refer the dispute to conciliation, the arbitrators shall put the proceedings in abeyance until such period as requested by the parties. Where the proceedings are put in abeyance or terminated on account of mutual settlement of dispute by the parties, the fees payable to the arbitrators shall be determined as under:
 - (i) 20% of the fees if the claimant has not submitted statement of claim.
 - (ii) 40% of the fees if the pleadings are complete
 - (iii) 60% of the fees if the hearing has commenced.
 - (iv) 80% of the fees if the hearing is concluded but the award is yet to be passed.
10. Each party shall be responsible to make arrangements for the travel and stay etc. of the arbitrator appointed by it. Claimant shall also be responsible for making arrangements for travel/stay arrangements of the Presiding Arbitrator and the expenses incurred shall be shared equally by the parties.

In case of sole arbitrator, both parties shall equally share all expenditures that may be required to be incurred.
11. The fees and other administrative/secretarial expenses of the arbitrator(s) shall not exceed the model fee as stipulated in Schedule--- of the Act and such expenses shall be equally borne by the parties.
12. The Place/Seat of Arbitration shall be Guwahati or the place where the contract is executed. The venue of the arbitration shall be decided by the Arbitrator(s) indisscussion with the parties. The cost of arbitration sittings shall be equally borne by the parties.
13. The Arbitrator(s) shall give reasoned and speaking award and it shall be final and binding on the parties.
14. Subject to aforesaid, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

- a) In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract (s) between Central Public Sector Enterprises (CPSEs) and also between CPSEs and Government Departments/Organizations (excluding disputes -concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in OPE OM No. 4(1)/2013-DPE(GM)/FTS- 1835 dated 22-05-2018.
- b) A party wishing to commence arbitration proceeding shall invoke Arbitration Clause and refer the dispute(s) to AMRCD with a copy to the other party. The notice invoking arbitration shall specify all the points of dispute with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter.
- c) Upon such reference, the dispute shall be decided by the Competent Authority appointed under the AMRCD, whose decision shall bind the parties finally and conclusively. The parties in the dispute will share equally the cost of the arbitration as intimated by the Arbitrator.

42.3 Arbitration (Applicable to Micro, Small and Medium Enterprise)

In the event of any dispute or difference relating to, arising from or connected with the Contract, efforts shall be made to resolve the dispute(s) amicably by mutual consultation and in case such dispute(s) cannot be resolved through mutual consultation, then same shall be resolved through the procedure as prescribed in Section-18 of the Micro, Small and Medium Enterprises Development Act, 2006.

42.4 Resolution of disputes through conciliation by OEC

(Not Applicable in cases where value of dispute is less than Rs. 25 Lakhs and more than 2 Crore)

If any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, Company at its discretion, on its own or on the request of the CONTRACTOR, may refer the dispute to Outside Expert Committee (“OEC”) to be constituted by Corporate Business Committee (CBC), OIL as provided hereunder:

- a) The party desirous of resorting to conciliation shall send a notice of 30 (thirty) days to the other party of its intention of referring the dispute for resolution through OEC. The notice invoking conciliation shall specify all the points of disputes with details of the amount claimed to be referred to OEC and the party concerned shall not raise any new issue thereafter.
- b) OIL shall nominate three outside experts, one each from Financial/commercial, Technical and Legal fields from the Panel of Outside Experts maintained by OIL who shall together be referred to as OEC (Outside Experts Committee).
- c) Parties shall not claim any interest on claims/counterclaims from the date of notice invoking conciliation till execution of settlement agreement, if so arrived at. In case, parties are unable to reach a settlement, no interest shall be claimed by either party

for the period from the date of notice invoking conciliation till the date of OEC recommendations in any further proceeding.

- d) The Proceedings of the OEC shall be broadly governed by Part III of the Arbitration and Conciliation Act, 1996 including any modifications thereof. Notwithstanding above, the proceedings shall be summary in nature and Parties agree to rely only upon documentary evidence in support of their claims and not to bring any oral evidence in the OEC proceedings.
- e) OEC shall hear both the parties and recommend possible terms of settlement between the parties. The recommendations of OEC shall be non-binding and the parties may decide to accept or not to accept the same. Parties shall be at liberty to accept the OEC recommendation with any modification they may deem fit.
- f) Where recommendations are acceptable to both the parties, a settlement agreement will be drawn up in terms of the OEC recommendations or with such modifications as may be agreed upon by the parties. The settlement agreement shall be signed by both the parties and authenticated by all the OEC members either in person or through circulation. This settlement agreement shall have the same legal status and effect as that of an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal under Section 30 of the Arbitration and Conciliation Act, 1996.
- g) OIL will share all other guidelines regarding reconciliation through OEC with the CONTRACTOR when it resorts to settlement through OEC. Both parties agree to adhere to these guidelines.
- h) All the expenditure incurred in the OEC proceedings shall be shared by the parties in equal proportion. The parties shall maintain account of expenditure and present to the other for the purpose of sharing on conclusion of the OEC proceedings.
- i) The OEC proceedings must be completed within a period of 3(three) months from the date of constitution of the OEC with a provision of extension of one months, subject to mutual agreement. The Place of OEC shall be either at New Delhi or Guwahati.
- j) If the parties are not able to resolve the dispute through OEC or do not opt for conciliation through OEC, the party may invoke arbitration clause as provided in the contract.
- k) The parties shall be represented by their in-house employees/executives. No party shall bring any advocate or outside consultant/advisor/agent. Ex-officers of OIL who have handled the matter in any capacity directly or indirectly shall not be allowed to attend and present the case before OEC on behalf of Contractor. However, ex- employees of parties may represent their respective organizations.
- l) Solicitation or any attempt to bring influence of any kind on either OEC Members or OIL is completely prohibited in conciliation proceedings and OIL reserves the absolute right to close the conciliation proceedings at its sole discretion if it apprehends any kind of such attempt made by the Contractor or its representatives.

42.5

Exclusions

Parties agree that following matters shall not be referred to conciliation or arbitration:

- i) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision to initiate any proceedings for suspension or debarment or banning, or decision to suspend or to ban or to debar business dealings with the bidder/CONTRACTOR and/or with any other person involved or connected or dealing with bid/contract/bidder/CONTRACTOR.
- ii) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision under the provisions of Integrity Pact executed between OIL and the Bidder/CONTRACTOR.
- iii) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision to comply with any order or directive of any statutory or government authority.
- iv) Any claim which is less than Rs. 25 Lakh.

43.0 COMPLETION OF CONTRACT:

Unless otherwise terminated under the provisions of any other relevant Clause or extended through written communication, this Contract shall be deemed to have been completed at the expiry of the Period specified in the contract or period of defect liability, as provided for under the Contract, whichever is later.

44.0 TERMINATION:

44.1 Termination on expiry of the contract: This Agreement shall be deemed to have been automatically terminated on the expiry of the contract period unless OIL has exercised its option to extend this contract in accordance with the provisions, if any, of this contract.

44.2 Termination of contract for death: If the CONTRACTOR is an individual or a proprietary concern and the individual or the proprietor dies or if the CONTRACTOR is a partnership concern and one of the partners dies then unless, the COMPANY is satisfied that the legal heir of the individual or the proprietary concern or the surviving partners are capable of carrying out and completing Contract, the COMPANY is entitled to cancel the Contract for the uncompleted part without being in any way liable for any compensation payment to the estate of the deceased CONTRACTOR and/or to the surviving partners of the CONTRACTOR's firm on account of the cancellation of Contract. The decision of the COMPANY in such assessment shall be final & binding on the parties. In the event of such cancellation, the COMPANY shall not hold the estate of the deceased CONTRACTOR and/or the surviving partners of CONTRACTOR's firm liable for any damages for non-completion of the Contract.

44.3 Termination on account of Force Majeure: Unless the contract provides otherwise, either party shall have the right to terminate this Contract on account of Force Majeure as set forth in Article-31.0 above.

44.4 Termination on account of insolvency: In the event that the CONTRACTOR or its collaborator or its guarantor at any time during the term of the Contract, becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt or under the process of insolvency or liquidation, then the COMPANY shall, by a notice in writing have the right to terminate the Contract and all the CONTRACTOR's rights and privileges hereunder, shall stand terminated forthwith.

However, COMPANY shall be at liberty to give the Receiver or Liquidator or Insolvency Professional Manager, as appointed by the Competent Court/Tribunal, the option of carrying out the Contract subject to its technical & financial competence and his providing a guarantee for due and faithful performance of the Contract.

- 44.5 Termination for Unsatisfactory Performance:** If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at www.oil-india.in].
- 44.6 Termination due to change of ownership and Assignment:** In case the CONTRACTOR's rights and/or obligations under this Contract and/or the CONTRACTOR's rights, title and interest to the equipment/ material, are transferred or assigned without the COMPANY's written consent, the COMPANY may at its option, terminate this Contract. COMPANY shall not be however under any obligation to accord consent to the CONTRACTOR for change of ownership & assignment of the contract.
- 44.7** If at any time during the term of this Contract, breakdown of CONTRACTOR's equipment results in CONTRACTORS being unable to perform their obligations hereunder for a period of 15 successive days, COMPANY at its option, may terminate this Contract in its entirety or partially to the extent non-performance, without any further right or obligation on the part of the COMPANY, except for the payment of money then due. No notice shall be served by the COMPANY under the condition stated above.
- 44.8 Termination for delay in mobilization:** CONTRACTOR is required to mobilize complete equipment alongwith crew for commencement of services at the specified site within the maximum allowed number of days from the date of LOA/Notice for Mobilization as specified in the special conditions of contract. If the CONTRACTOR (successful bidder) fails to complete the mobilization as above, OIL shall have, without prejudice to any other clause of the CONTRACT, the right to terminate the contract.
- 44.9** Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of termination.
- 44.10 Consequence of Termination:** In all cases of termination herein set forth, the relative obligations of the parties to the Contract shall be limited to the period up to the date of termination. Notwithstanding the termination of this Contract, the parties shall continue to be bound by the provisions of this Contract that reasonably require some action or forbearance after such termination.

Upon termination of this Contract, CONTRACTOR shall return to COMPANY all of COMPANY's properties, which are at the time in CONTRACTOR's possession.

In the event of termination of contract, COMPANY will issue Notice of termination of the contract with date or event after which the contract will be terminated. The contract shall then stand terminated and the CONTRACTOR shall demobilize their personnel & materials.

Demobilization charges shall not be payable by COMPANY in case of Article from 44.4 to 44.7.

45.0 TO DETERMINE THE CONTRACT:

In such an event the contract shall stand terminated and shall cease to be in force from the date of such notification by the COMPANY. Thereafter the CONTRACTOR shall stop forthwith any of the work then in progress, except those work which the COMPANY may, in writing, require to be done to safeguard any property or work, or installations from damages, and the COMPANY may take over the remaining unfinished work of the CONTRACTOR and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR, and any of its sureties if any, shall be liable to the COMPANY for any excess cost occasioned by such work having to be so taken over and completed by the COMPANY over and above the cost at the rate/cost specified in the schedule of quantities and rates/prices.

46.0 WITHOUT DETERMINING THE CONTRACT:

To take over the work of the CONTRACTOR or any part thereof and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR. The CONTRACTOR and any of its sureties are liable to the COMPANY for any excess cost over and above the cost at the rates specified in the schedule of quantities and rates/prices, occasioned by such work having been taken over and completed by the COMPANY.

47.0 ERRING/DEFAULTING AGENCIES:

Erring and defaulting agencies like bidder, CONTRACTOR, supplier, vendor, service provider will be dealt as per OIL's Bidding Policy dated 6th January, 2017 available on OIL's website: www.oil-india.com. Moreover, OIL reserves the right to take legal or any other action on the basis of merit of the case.

48.0 MISCELLANEOUS PROVISIONS:

CONTRACTOR shall give notices and pay all fees at their own cost required to be given or paid by any National or State Statute, Ordinance, or other Law or any regulation, or bye-law of any local or other duly constituted authority as may be in force from time to time in India, in relation to the performance of the services and by the rules & regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the services.

CONTRACTOR shall conform in all respects with the provisions of any Statute, Ordinance of Law as aforesaid and the regulations or bye-law of any local or other duly constituted authority which may be applicable to the services and with such rules and regulation, public bodies and Companies as aforesaid and shall keep COMPANY indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance or Law, regulation or bye-law.

During the tenure of the Contract, CONTRACTOR shall keep the site where the services are being performed reasonably free from all unnecessary obstruction and shall store or dispose of any equipment and surplus materials and clear away and remove from the site any wreckage, rubbish or temporary works no longer required. On the completion of the services, CONTRACTOR shall clear away and remove from the site any surplus materials; rubbish or temporary works of every kind and leave the whole of the site clean and in workmanlike condition to the satisfaction of the COMPANY.

Key personnel cannot be changed during the tenure of the Contract except due to sickness/death/resignation of the personnel or any other justified situation in which case the replaced person should have equal experience and qualification, which will be again subject to prior approval, by the COMPANY.

*****End of Section-I*****

SECTION-II: SPECIAL CONDITIONS OF CONTRACT (SCC)

The Clauses of Section-II shall supplement and / or amend the corresponding clauses under Section-I. Whenever there is a conflict, the provisions herein shall prevail over those in Section-I.

SPECIAL CONDITIONS OF THE CONTRACT (SCC)

Scope of Work and Special Conditions of Contract(SOW & SCC)

DETAILED SCOPE OF WORK (SOW) FOR O&M OF CTF,
DULIAJAN DETAILED SCOPE OF WORK (SOW) FOR O&M OF
CTF, DULIAJAN

General Description: Central Tank Farm (CTF), Duliajan

OIL INDIA LIMITED (OIL), is a Government of India “NAVARATNA” Category Enterprise, engaged in the business of Exploration & Production & Transportation of Crude Oil, Petroleum Products and Natural Gas and Production of LPG in India with participating interest in E&P sector in various overseas projects. OIL’s present level of crude production stands at around 3.2million tones per annum. The Pipeline Department of Oil India Limited deals with transportation of hydrocarbons to different refineries and thus operates a total of 1860 Km of Hydrocarbon pipelines, which comprises of 1206 Km of Crude oil trunk pipeline and 654 KM Product pipeline.

Central Tank Farm (CTF), situated at Duliajan, Assam with 54,836 cu.mtr. storage capacities consisting of four (04) nos of fixed roof storage tanks each of 1109 kl holding capacity (Tank no 1,2,3 & 4) and five (05) nos of floating roof storage tanks each of 10,080 kl holding capacity (Tank no 5,6,7,8 & 9A) is situated inside the industrial area at Duliajan adjacent to Pump Station - 01 (PS-01), a captive power plant and LPG Bottling plant of OIL. From CTF, crude oil is delivered to the suction of booster pumps (both mainline and branch line) of PS-01 for onward pumping of crude oil to Refineries (Digboi Refinery, Numaligarh Refinery and Guwahati Refinery). OIL shall supply electrical

power from the adjacent power plant at a single point inside the plant boundary for plant operation. Initially, crude oil produced at different field installations of OIL was directly delivered at CTF. CTF was mainly used as crude oil storage facility to tide over fluctuation in upliftment of crude oil by Refineries after separation of formation water through settling process.

Subsequently, to improve the BS&W content of the processed crude oil, a Secondary Tank Farm (STF) with crude oil processing units at Madhubhan has been constructed for processing of wet crude oil received from OIL field installations. Post commissioning of STF, only processed crude oil is being delivered to CTF and crude oil storage tanks of CTF are used as Buffer Tanks for storing processed crude oil.

Accordingly, floating roof tank no 5, 6 & 7 of 10,080 M3 each are being used as Buffer storage tanks and the remaining tanks will be decommissioned/dismantled in due course of time after complete evacuation of hydrocarbon.

Post MB Lal committee recommendation, the firefighting facility of CTF was upgraded in line with revised OISD – 117 and TAC norms and new facilities were installed as per latest OISD guidelines.

Keeping in view, the safety of the plant, all the Firefighting facilities installed under MB Lal Project to be retained till dismantling of unused Tanks.

Description of Process:

Incoming Crude: The incoming crude from STF is received at a common manifold of Tank no 5,6 & 7.

Delivery of crude oil to other tanks shall be stopped completely by complete isolation of piping/delivery lines connected to remaining tanks till dismantling. From the manifold there is a 14 inch pipeline connected to each tanks (floating roof).

Storage Tanks: There will be three nos of Floating roof tanks of capacity 10890 m3 each for storing crude oil. One tank will be used as Dispatch Tank and the other two tanks will be used for storing incoming processed crude oil from STF or handling crude in emergency situation. The temperature of the crude storage tanks shall be maintained at an average of 40° C with the help of steam coil.

Fire Fighting Facility: Firefighting facility is in conformity to revised OISD 117 and MB Lal Committee recommendations and TAC norms.

CTF-Duliajan has:

6 (six) number of diesel engine driven Fire water drenching pumps with 616KL/Hr capacity at 105m water Head.

2 (two) nos of motor driven Jockey Pumps for maintaining the ring main pressure with 130 m3/hr capacity and 110 meter head.

2 (two) nos of motor driven Foam pumps with 26.6 KL Foam availability.

Foam Monitors & Foam Pourers at the tanks. Each storage tank has its own in-situ foam generating arrangement, water drenching system to fight accidental fire. An integrated fire-protection and fire-fighting facility are available for the plant in accordance with OISD-117.

Standby static water storage facility comprising of 7200 KL ground water reservoir and two (2) nos of over ground tanks of 2475 KL each is available in accordance with OISD norms for catering to bulk firefighting water requirement during emergencies

Sixteen (16) numbers of Medium Expansion Foam Generators. Differential Pressure Inductor Foam system.

Ten (10) numbers of Remote operated High Volume Long Range Monitors. Six

(6) numbers of manual operated High Volume Long Range Monitors Fire

Detection, Alarm & Suppression System.

Any other changes to meet OISD 117 and MB Lal committee recommendations Description of

Facilities:

Following facilities / infrastructure are available at CTF:

Central Tank Farm (i.e. Crude Oil Storage Tanks) of 54,836 M3 holding capacity consisting of four (4) nos. of fixed cone roof storage tanks each of 1109 M3 capacity (Tank no 1,2,3 & 4) and five (5) floating roof storage tanks each of 10080 M3 holding capacity (Tank no 5,6,7,8&9A) complete with accessories, safety implements & corrosion prevention system. Contractor's scope of work will be limited to Tank no 5,6, & 7.

There are two Oil Water Separator (OWS) systems one with closed network of MS pipes of diameter 10 inches around tank farm and the other (New) is an underground closed network of MS pipes of diameter 10 inches around tank farm.

Fire Protection & Fire fighting System.

Electrics and Illumination – 6 High Masts, street lights, peripheral lighting.

Instrumentation, Control & Communication system for plant management & fail- safe operation through control room operation

Civil infrastructure -Buildings & sheds, utility buildings, control room, garden, roads, drainage & OWS
Other ancillary-facilities available for smooth running of the plant

Interconnection of the fire network with LPG bottling plant and Pump Station-1. Outside
motor able peripheral road for security patrolling
2 numbers of watch towers.
Parking space.
CCTV System

DETAIL SCOPE OF WORKS: OPERATION:

The details of the Equipments / Facilities/ Systems to be maintained under “OPERATION” at CTF,
Duliajan:
Systems/Facilities:

Centralized Control room for online monitoring and process control to be manned on 24X7 basis with
Safety PLC system& consoles etc. – One system– with related systems like clean agent system, Fire alarm
panel & detectors, package AC system, UPS system, Internal lighting system etc.
SIL certified Level measuring instruments – RADAR & SERVO gauges in each tank – 3 Tanks (Tank no
5,6 & 7).

Complete Tank farm management system, temperature & water cut probes, ROSOV & MOV/DBBV
systems - for automatic isolation of tank inlet & outlet. ROSOV ARE FAIL SAFE AND FIRE SAFE
TYPE.

ROSOV - 7 nos.

MOV - 10 nos.

Online Gas Detector Systems

ESD (Emergency shutdown system) from centralized control room & field CCTV
system

PLC based Rim seal fire protection system

HVLRM– High velocity long range monitors – Remote & Manual type - with control panels, MOV etc.

Fire water pumps & associated sub-systems inside pump house, related control system, electrical system
and equipments/valves installed in the hydrant line

Fire water tanks, sprinkler system and related valves/instruments Foam

system & Piping Network– pumps, tanks, valves and related E&I Rim Seal

Fire Protection System for Tank no 5,6 & 7.

Electrical Switch room with ELDB & MLDB panels

Field Instruments like PT, TT etc. (few)

Compressed Instrument Air System – Compressor, dryer, related E&I, valves etc.

High Mast Lighting system and outdoor lighting near ROSOV/MOV panels outside dyke in Duliajan
OWS system

Control Room in totality: AC system & Lighting.

Centralized Control Room with Safety PLC and TFMS System: A centralized control room in the tank
Farm provides automatic control & operability of the tank farm process and will also take immediate
automatic reactive action for any untoward process excursions and emergencies, thereby isolating the plant,
equipment and other facilities from damage & accidents. The control room has a SIL certified Safety PLC
(Programmable Logic Controller) with redundant processor system, power supplies, communication bus
and I/O cards. The control room also has a Tank farm management system for automatic level control and
inventory management. There are two level gauges in each tank, one is RADAR type and other is SERVO
type with a dedicated temperature cum water cut probe and there is MOV for controlling tank filling and
dispatch which can be operated from control room as Operator’s selection. Apart from above there is an
emergency shutdown system which takes care of emergency situations automatically by actuating the
ROSOV for immediate tank isolation and tripping the dispatch pumps. There is also CCTV system in the
control room for 24x7 surveillance of the entire tank farm operation’s & boundary including a dedicated fire
alarm panel with smoke & fire detectors.

BROAD SCOPE OF WORK: The broad scope of work under this CONTRACT is to operate and maintain the following Equipment's / Facilities / Systems along with making provision of spares as per terms of this contract for CTF, Duliajan.

Operation Manning of Control room and Generate Reports as per approved format

Operation of the panels in switch room as per need

Carry out tank transfer – Receipt & Delivery through MOVs & HOVs

Operation of the Fire Fighting system including pumps – Routine and as per need Operation of compressed air system as per procedure

Operation of Foam system as per need & routine

Housekeeping of all the above systems (01 to 19) – Mainly Control room, Switch room, fire water pump house etc.

Up-keepment of all field instruments, PLC control system and its auxiliaries, TFMS system, CCTV system, Fire Alarm panel, Gas Detection system, PLC based Rim Seal fire protection system etc.

Maintenance, Calibration and checking of all field instruments such as Pressure Transmitters, Temperature Transmitters, Radar Gauges, etc. and ensuring their functionality .

Checking of wiring with respect to measurement of different signals such as Analog

(Voltage/current/Resistance etc.) and Digital from field instruments at Junction Boxes/ Marshalling panels of field/ control room during troubleshooting or when need arises.

Checking, cleaning of sensors and calibration of Gas, Fire and Smoke detectors during operational emergency.

Replacement of small instrumentation spares such as glass fuse, barriers, terminal block (TB), indicating Lamp and system history backup as and when required.

Minimum tools and tackles, test equipment such as Multimeter, Portable Pressure Calibrator, etc for smooth operation of the installations are to be arranged by the Contractor.

Upkeep all safety systems like fire water in tanks, diesel in engine fuel tanks, foam in tanks, etc. Diesel & Foam will be supplied by OIL as per need.

Regular (day-to-day) check-up of fuel, lube oil, coolant and battery condition (distilled water level) etc of the drenching pump engines. Consumables will be provided by OIL.

Operation of source water pumps (submersible) to maintain water level in fire water storage tanks.

Operation of the firefighting system. Operating the Fire Pumps, Jockey Pumps, Manually & Remote Operated HVLRM, MEFG, single & double headed hydrants, Hose Box, Foam Maker, Foam Pourer, Rim Seal Fire Fighting System, Extinguishers Inspection, Conducting Fire Mock Drill should be maintained & strict compliance to OISD 116, OISD 117, OISD 189, OISD 142, or latest.

All the routing testing & maintenances of equipments mentioned in point no. 18 (above) to be monitored & maintained by HSE cum Fire Officer with the help of firefighting person along with the operation crew.

Liaising with concerned IMs of the Installations from where crude oil is received or being delivered during routine as well as emergency situation as and when required and as directed by Factory Manager/Engineer – In- charge of CTF, Duliajan.

Any other minor maintenance required due to sudden leakage, malfunctioning of either the instruments/systems etc. should be carried out by the Contractor on priority basis whereas necessary consumables will be provided by OIL.

Initiate firefighting operation as per the “Fire Contingency Plan” and continue till the operation is taken over by the OIL personnel and subsequently follow the instruction/ order.

Necessary Work Permit/s to be obtained as per statutory norms.

Exclusion:

Operation of Tanks other than Tank no 5,6 & 7

Operation & Maintenance of instruments/equipment installed in the Tanks other than Tank 5,6 & 7. Operation & Maintenance of old (Existing) systems in the Tank-Farm.

Housekeeping of old (existing) systems and periphery of excluded tanks.

Removal of Oil, Sludge, Debris etc. both within the dyke and outside of Tank no 1,2,3,4,8 & 9A. **PLANT and PLANT BATTERY LIMITS:**

“PLANT” shall mean the entire area as mentioned in the CLAUSE No. 2.1 of “Systems/Facilities” falling within the existing battery limit of CTF, Duliajan on its four sides. PLANT encompasses all facilities, equipment, machinery, civil structures, sheds & buildings within the boundary walls as mentioned in clause no. 2.1 required for smooth operation of Tank no 5, 6

& 7.

PLANT BATTERY LIMITS is defined as mentioned in clause no. 2.1 above.

In no other circumstances what so ever except the above clause no 2.2.2, PLANT BATTERY LIMITS is applicable. The Contractor cannot and shall NOT use PLANT BATTERY LIMITS in any cases related to scope of work of “OPERATION” of the PLANT.

Power and duties of Contractor: Contractor shall take all appropriate steps to maintain in force & execute the Contract in accordance with the terms of the Contract. All operations and maintenance will be carried out by the Contractor in accordance with policies, work program within the plant in accordance of the provisions of contract and the directions of the Factory Manager or his authorized representative and in accordance with standard and safe industry practice within the purview of all statutory norms applicable in upstream oil industry.

HSE (Health, Safety and Environment):

Contractor shall operate and maintain the plant in a diligent, safe and efficient manner strictly in accordance with provisions stipulated obligations imposed upon by applicable laws of India, Indian Factory Acts, Indian Explosives Act and Indian Electricity Rules, Petroleum Rules etc. in force and OISD norms in vogue.

Contractor shall also comply with guidelines of the Statutory bodies like OISD, IBR, State and Central Pollution Control Board(s), PESO, Legal Metrology Department, OIL's HSE policy and other relevant statutory body in existence or likely to come into existence.

For any HSE matters not specified or without any stipulated provision in the contract document, the Contractor will abide the relevant and prevailing acts / rules/ regulations & sound industry practices pertaining to Health, Safety and Environment.

It will be solely the Contractor's responsibility to fulfil all legal formalities with respect to the Health, Safety and Environmental aspects of entire “OPERATION” job under the contract (namely formalities related to the person & the equipment employed by the Contractor and the environment etc.) under the jurisdiction of Dibrugarh district, Assam.

Further, while carrying out all the “OPERATION” jobs at CTF, Duliajan, it will be entirely the responsibility of the Contractor to ensure strict adherence to all HSE measures, statutory rules and to ensure safety of all workers of the Contractor. All terms & conditions under clause no 2.4 shall be applicable to all persons of Contractor deployed at CTF, Duliajan.

The Contractor has to update and timely submit all HSE related paper-works including but not limited to reporting, record keeping etc to external agencies and/or to OIL. The report-formats will be as per prevalent ones in OIL and/or as suggested by statutory bodies and as per prevailing laws. In case of employee's daily attendance in Form-E, the Contractor shall regularly take and maintain attendance of all its employees coming to work at CTF, Duliajan. As stated in man power clause, the Contractor shall promptly report to Installation Manager if deviation in attendance from already submitted man power roster happens on a day.

Contractor shall have to report all incidents including near miss to Factory Manager/ Engineer – In- Charge in the prescribed format of OIL. The Contractor has to arrange daily tool box meeting and regular site safety meetings and maintain records.

The Contractor – within 30 days from LOA of the contract - shall prepare written Site Specific Safe Operating Procedure (Site Specific SOPs) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state all the risks that may arise to men, machineries & material during execution of any Operation jobs to be done by the Contractor and how it is to be managed. Display of SOPs at site will be the responsibility of the contractor. The SOPs to be approved by competent person of OIL

The Contractor shall provide a copy of the SOP to the Factory Manager or his deputed competent

persons at CTF, Duliajan who shall be supervising the Contractor's work. The Contractor shall keep an up-to-date SOP and provide a copy of the changes to OIL's person as above.

Contractor has to ensure that all work is carried out in accordance with the Statute and SOP and for that purpose he may deploy adequately qualified and competent personnel. For work of a specified scope/nature, he should develop and provide to the Factory owner a site specific code of practice in line.

In case the Contractor is found non-compliant of HSE laws as required, OIL will have the right for directing the Contractor to take prompt action to comply with the requirements or to cease work until the non-compliance is corrected.

In case of accident causing injury, loss of life or property inside the Plant, the Contractor shall: Immediately report the same to OIL.

Provide necessary first aid/medical assistance without any delay. Report the same in the prescribed format as per statutory norms. Investigate the matter & submit investigation report within 3 days. Providing reliever crew in place of any injured person immediately.

Contractor shall be responsible for any pollution, accident (causing injury to man, damage to machinery) and clean-up operation due to pollution caused by the Contractor as a fall out of non-compliance of HSE rules & regulations. OIL's technical team shall investigate cause(s) of pollutions, accidents and/or any other non-compliance of HSE rules & regulations by the Contractor and the findings thereof shall be final. In this context, plant battery limit will not be applicable if the pollution caused by the Contractor inside the plant spills out of the plant boundary.

Contractor shall carry out Daily Plant General Inspection within the Battery Limit. Contractor shall do visual inspections of all equipment; facilities etc wherever possible and identify level of deposition, attrition/depletion, and deterioration in materials. Contractor shall also identify and ascertain likelihood of material deterioration at any part of all equipment, facilities etc where the same can be carried out with the help of checking-tools.

The Contractor shall also identify likelihood of any related unsafe working environment due to the above and promptly inform OIL.

The Contractor shall be responsible for any unplanned circumstances / events in the plant within the Battery Limit that may take place due to material failure resulting from Contractor jobs of the Contractor. The Contractor shall also be responsible for failure to identify or to report any abnormality as above not leading to subsequent unplanned circumstances / events. The cause(s) of such circumstances/ events shall be investigated by OIL's technical team and finding thereof shall be final.

Factory Manager, CTF may appoint one or more of the contractor's personnel as competent person(s) for carrying out specific job(s) coming under the contract within a certain domain of authority. Contractor shall have to abide by the same. The authority of such competent persons shall, under no circumstances, supersede that of the Factory Manager CTF, Duliajan / Engineer – In- Charge of OIL. Appointment of the competent persons is not a pay-roll appointment.

All persons deployed at CTF, Duliajan by the Contractor must undergo Vocational Training, Initial Medical Examination, Periodic Medical Examination and other requisite statutory trainings like but not limited to firefighting training as per MOPNG act, OISD-116/117, First Aid Training, Gas Testing Training etc.

The health checkup of Contractor's personnel is to be done by the Contractor in authorized Health Centers as per OIL's requirement and proof of such test(s) is to be submitted to OIL as per Factory norms. The frequency of periodic medical examinations is twice every years for all employees of the Contractor.

Contractor may take note of the fact that OIL provides some of the statutory training like First Aid /

Fire Fighting etc. to contractor's employees engaged by OIL near its Field Headquarter, Duliajan.

If OIL arranges any safety classes / training etc. for the working personnel at site the Contractor must arrange to release its personnel for any such training without hampering normal Operation jobs.

Every person deployed at the CTF, Duliajan by the Contractor must wear all required safety gadgets / PPE items which are to be provided by the Contractor. No person will be allowed to work at CTF, Duliajan without PPE and such debarring of any of the Contractor's person(s) may lead to penalty under clause no 5.0 of TOR vide Man power clause no 4.0, if Contractor cannot arrange substitute(s) for the debarred person(s).

The Contractor shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and OIL's PPE schedule. Safety appliances like Safety Boots, Safety Helmet and Full Body harness have to be approved by appropriate authority. Necessary supportive documents / approvals shall have to be submitted as proof.

If the Contractor fails to provide the safety items as mentioned above to the working personnel, the Contractor may apply to the Company (OIL) for providing the same. OIL will provide the safety items, if available. But in turn, OIL will recover the actual cost of the items by deducting from Contractor's Bill. However, it will be the Contractor's sole responsibility to ensure that all the persons engaged by him in the Factory use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.

The Contractor must also possess various other safety items including but not limited to 2 (two) fire suits, 1 (one) lifting-jack for rescuing trapped persons, high intensity intrinsically safety torch, at site. In case of failure of the Contractor to provide the above safety gadgets at the plant, Penalty Clause number-5.0 will be imposed on Contractor.

The Contractor shall develop a scenario base fire contingency plan independently for the installation as per the latest and get approved from respective Factory Manager.

Contractor must ensure that all fire fighting equipment, appliances and entire fire fighting operation for round the clock availability in 100% operational condition. They should report to Factory Manager / Engineer – In-charge of CTF, Duliajan for immediate corrective measures, if any. In this respect, all terms and conditions under Penalty Clauses under 5.0 of TOR shall be applicable and adequate manning of Fire fighting system shall be as per man power clause no 4.0

Contractor must ensure that all the drenching pumps and jockey pumps are in full operational condition at all time and keep the entire fire fighting pump system in Auto Mode. For that purpose, ring main pressure must be maintained at minimum 7 Kgs (or 10kgs) as per design of installation requirement with the help of the jockey pumps.

All the drenching pumps and jockey pumps must be put to different test with test- frequencies as stated in Annexure-I. Routine checks, periodic inspection, & testing as per the requirements of OISD- STD-142 need to be done for all other fire fighting equipment of the plant.

Reports of all testing / checks / inspection / observations etc conducted on fire fighting system and any corrective actions required / taken are to be as per clause no 2.6 (viii).

The Contractor shall ensure for trouble free, smooth uninterrupted 24 hour operation of CTF, Duliajan as per safe & sound industry practice.

Contractor must always check the quality / usability of the AFFF ie Aqueous Film Forming Foam and FFFP i.e. Film Forming Fluro-protein foam available at site.

Contractor must conduct Fire Mock drills at the CTF, Duliajan once every fortnight. Fire water ring main line may be connected to two (2) or more adjacent OIL's installations. Fire fighting operations

must cater to the needs of these installations for Mock Fire Drills and Fire Fighting Scenario. All

expense of monthly Mock Fire Drill at these two installations has already been incorporated in the contract cost.

Contractor will provide all necessary support & co-operation in terms of resources, man-power and other facilities if OIL decides to obtain HSE related certifications including but not limited to ISRS, ISO, OHSAS at CTF, Duliajan.

All Contractor's employees must, while at work, cooperate with OIL so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of employee's health, safety and welfare.

Any of the employees of the Contractor shall not refuse to follow any instruction given by OIL's Factory Manager or any competent person engaged by him for ensuring and monitoring safe operation.

The Contractor must carry out all operation of any new equipment / facilities / instruments installed for compliance of any recommendation(s) of any statutory bodies or audits etc. during the currency of the contract.

Day to day Processing & Operating jobs:

The Contractor must carry out all the processes as described in Process Descriptions under Clause no 2.1 and carry out all related operation jobs for smooth, trouble free, uninterrupted, full-capacity and safe operation of the plant.

Contractor must carry out all the above processes in clean, safe and environmentally friendly ways; must avoid all sorts of pollution & contamination of the surrounding areas & environment.

Contractor-performance will be judged on following specification:

Entire Oily Water Sludge (OWS) system must be in complete operational state on all days in a year. Presence of oil, oily water sludge & water in the system shall be at minimum level.

Non compliance / non-performing of this job will be judged by fluid levels in all the OWS gravity separator pits available at different parts of the plant and in the final OWS separator sump . The levels as above shall NOT be more than 50cm from the bottom of each OWS pits & sump.

In case of failure of the Contractor to maintain the above specifications, penalty on the Contractor as per Penalty Clause number-5.0 will be imposed.

All cleaning activities of equipment (eg pump-strainers etc), facilities, infrastructures and their parts & components shall be done in a way that oil, dirt and any other residue are confined to the OWS only and are not allowed to spill or spread to any other parts of the plant.

Any oil marks / smudges / oil sludge on ground or on any surfaces must immediately be cleaned / scrapped and disposed safely at OIL designated place(s).

Operation of the entire systems as mentioned above in clause no.2.2. In case of failure of the Contractor to operate the system which can lead to the breakdown of the mentioned equipment (clause no. 2.2), penalty on the Contractor as per Clause no. 5.0 will be imposed.

Contractor's scope of supply and provisioning of Consumables & Materials.

The Contractor shall bear the cost on PPE for all of their employees to be deployed at Tank Farm. The list of PPE shall include following minimum types of items with relevant ISI certification:

SAFETY SHOE	h) EYE GOGGLES
SAFETY HELMET	i) RAINCOAT/RAIN SUIT
DUNGAREE (OVERALL)	j) JACKET GUM
BOOT	
EAR PLUG	
HAND GLOVES (Normal operations)	
HAND GLOVES (High Temperatures & chemical usage)	

OIL will check the brands / qualities of the PPE items at site prior to issue of the PPE items to the Contractor's employees. The quality of the PPE shall have to be as per clause no 2.6 (x).

In case OIL finds any PPE items to be of inferior quality, torn &/or tattered the same shall not be

allowed to be used by the Contractor in the Tank Farm. As per man-power clause, persons without PPE shall not be allowed to work at Tank Farm on any time of a day and corresponding Penalty Clause number-5.0 on shortage of man power shall be imposed on the Contractor. This penalty along with Penalty Clause number-5.0 for non-processing or partial processing shall be imposed on the Contractor in the event of impossibility of running the Operation of the plant at its full capacity because of shortage of minimum numbers of man- power.

OIL will ensure PPE-wearing only at worksites inside Tank Farm. PPE-wearing by Contractor's employees is not required during entering (and so exiting) the gate of Tank Farm.

The Contractor shall bear the cost on consumables required for general cleaning of the entire premises of the plant as per clause for "General Housekeeping and upkeepment of the plant" mentioned below like phenyl, toilet cleaner, sanitizer, soap & powder, deodorants, naphthalene, Rat Repellent etc and all cleaning tools like brushes, mopes , broom, rakers, spades, etc.

Statutory aspects in regards to procurement of items & services: All spares, consumables and materials procured by the Contractor as above (as per clause 2.7.2.i)) for Operation of the plant shall have necessary certification of Govt. approved agencies and approval of such statutory bodies as stipulated vide provisions of Factorys Regulations, Indian Explosives Act, Indian Electricity Rules, Petroleum Rules, Indian Boiler Regulations etc. in force or byelaws / directives promulgated by Govt. circulars.

General Housekeeping and upkeepment of the plant.

The Contractor must always keep the control room, switch room, fire fighting pump shed, compressor shed, OWS & other asset and equipments, facilities, buildings and sheds, premises and roads, footpaths, walkways etc as mentioned in clause no. 2.1 within the battery limit in in highest level of cleanliness and aesthetic look. In this respect the Contractor shall take up all necessary jobs including but not limited to the following:

Keep all facilities clean & tidy condition within the plant battery limit.

Cleaning of top part / inside vertical parts / bottom part of all surface drains and the drains surrounding all building, shed barrack etc and disposal of the debris / sludge etc at OIL's designated places.

All the drains need to be clean, devoid of any litter, trash, clogging etc.

These areas shall have to devoid any growth like algae or any other slippery organic, non-organic formation on them at all time during a year.

All bathrooms, toilets, urinals etc must be maintained at highest level of cleanliness. The Contractor must deploy housekeeping personnel regularly in that respect. There must be all time availability of all types of sanitary fittings, essentials and sanitary consumables at all these places.

Upkeepment of the control room & its surroundings with best aesthetic look and indoor plants etc.

The deviation(s) from the specifications as above, if observed, shall be communicated immediately to the Contractor by OIL. OIL expects good relationship with the Contractor and also expects highly professional and positive attitudinal approach of the Contractor for prompt response in rectifications of any faults / deviation from specs.

Other Jobs and Services:

Public Relation Jobs:

The Contractor shall establish and maintain such relationship with Government, local authorities and with the public as shall be necessary or appropriate to assure that the Operations are conducted and carried out in the most effective way and to the best advantages of OIL.

Contractor shall resolve issues related to the operations of Tank Farm (excluding the force majeure conditions) which otherwise may significantly affect the operations of the plant; and perform all other acts of similar nature necessary or in proper connection herewith; and any court appearance pertaining to matters relating to the Contract.

The Contractor will have to do everything that is necessary including but not limited to jobs like liaising with all concerned government departments, civil administration, law-enforcing agencies etc

for keeping all operations of Tank Farm normal during any public protest, picketing, "bandh" call etc.

Such public protest, picketing, “bandh”-call etc may be in general or specifically against M/s OIL. In any case, the Contractor shall be responsible and accountable for smooth, uninterrupted and trouble-free Operation jobs of Tank Farm. The Contractor cannot and shall not attribute any disruption of normal Operation jobs of Tank Farm on account of the above reasons to Force Majorue or to OIL.

Operation job not specifically mentioned in foregoing clauses:

During the currency of the contract, Factory Manager or Installation Manager may give the Contractor any written advice for conducting any work or providing any service coming under the scope of Operation of the plant.

The job or the service shall be deemed as a specific operation or an assigned job of the Contractor under the Operation contract during that month.

The Contractor has to reply in writing within next 2 to 5 days of receipt of the letter if it claims that the work does not come under Operation contract. Contractor must give details of their justifications, related clauses of the contract for not doing the job. The issue will be discussed among managements of both the companies for early settlement.

Looking at the urgency of the job in regards to operation & overall performance and safety of the plant, OIL may write to the Contractor to carry out the job first before settlement of the issue. If the job is found to be out of the purview of Operation contract, total expenditure of the Contractor on actual basis will be reimbursed at the earliest.

General guidelines to the Contractor for carrying out “OPERATION” jobs: Power

and duties of OIL:

For smooth and trouble free operation of the Tank Farm, OIL will have some administrative and operational power. Further, OIL will have some duties to perform and assistance to provide to the Contractor. The entire scope of OIL’s power, duty and assistance to the Contractor is mentioned in clause 13.0 of Part II of Section-II (SCC) of the tender document.

Reports / Records / Documents / Write-ups to be submitted to OIL

The Contractor - within 30 days of LOA of the contract - must develop a Safe Operating Procedure (SOP) including crude receipt & handover procedures in line with the Company’s requirements, reporting formats and such on-line and off-line records as may be generated by Plant Instrumentation & Control system as well as checklists & schedule of routine and periodic activities for operation of the plant as per sound practices adopted in upstream hydrocarbon industries. Such SOP shall be duly approved by the Company and be strictly adhered to by the Contractor for operation & maintenance of the plant.

The Company shall also reserve the right to inspect / review the Plant as well as its SOP by itself or its representatives or audit / statutory bodies and demand compliance of recommendations thereof in a particular time frame. Such compliance jobs from the Contractor as above may entail changes in the SOPs already approved by OIL and these changes will be incorporated in a revised SOP which needs to be adhered to thereafter. In general OIL is not likely to revise once-approved SOPs but there is no limit to number of revisions/amendments to any SOPs.

The Contractor has to update and timely submit all HSE related reports / records etc to OIL. The report-formats will be as per prevalent ones in OIL and/or as suggested by statutory bodies and as per prevailing laws.

In case of conflict /contradiction arising out of SOPs, contract clauses will prevail. SOPs are made within the purview and after the commencement of the contract.

The Contractor shall establish & maintain such books, records and accounts as are required by the contract. In addition to the reporting formats as in the SOPs, the Contractor shall have to furnish all such additional books, records, accounts, data & information pertaining to the operation of the plant as may be required and specified by OIL from time to time.

The Contractor shall maintain and submit reports, log sheets, checklists etc of all routine and all

periodic operational activities. The Contractor shall have to report to OIL immediately about any fault / disorder / abnormality found / identified / anticipated on any unit of the plant immediately.

Contractor shall also submit all testing report of equipment / machinery / unit etc of the plant and also submit observations of the tests and any corrective actions required / taken in a separate hard bound book meant for these test reports.

The Contractor shall generate reports for day-to-day operation in the prescribed formats, report of cleaning and up-keepment of the entire plant, operational problems and their handling without disturbing general operation of Tank Farm.

The Contractor shall carry out all safety audits at required frequency and duration and generate reports including but not limited to Tool Box Meeting, Fortnightly Pit Level Safety Meeting, Monthly Safety Meeting, Monthly Fire Drill, Near Miss Incident etc.

The Contractor shall have to promptly report to OIL about likelihood of any unsafe working environment / condition at Tank Farm as identified by them anytime or under Plant General Inspection.

The Contractor shall furnish all other reports at different intervals like half yearly reports, quarterly report on status of various equipment and facilities including civil infrastructure, sheds & buildings, roads and yards, landscaping and green belts, electric and illumination and any other items/equipments as requirement in the concurrence of the contract thereof.

Daily Information and reports:

Contractor-in conjunction with and as mentioned in some of the foregoing clauses-shall maintain and furnish the following data, information and reports on a daily basis:

Daily report which shall cover all activities during the period starting from 6:00 AM of the day to 6:00 AM of the consecutive day in OIL's format. The daily report for a particular day should be ready by 7:00 AM of the consecutive day and will be communicated to OIL's Engineer-In-charge / OIL's PS-01 office over telephone every morning before 7:30 AM by the Chief Terminal Manager or his authorized representative. Any deviations / abnormalities in any aspects of Operation matter need to be documented separately and reported in writing to Factory Manager or his representative at the earliest.

Daily reports of all Operation related works carried out on a day must be given in a consolidated single report.

Daily attendance sheet of all Contractor's employees in Form-E

Any specific report required to be generated from time to time as desired by Factory. Manager The

Contractor shall generate and submit the following reports as and when required:

Reports on any emergency shutdown of operation including the details of failure, action taken and remedial action to prevent repetition of similar shut down in future and the effect of such shut down in overall Plant operation. A chronology of such operation should be maintained. A report shall also be provided when the normal operation is resumed.

All accidents are to be reported immediately as per statutory guidelines. Accidents includes but not limited to leakage or failure, oil spills, fire, structural failures, explosion, sabotage, loss of property or life, strikes or Contractors affecting operations.

Accident investigation reports with complete detail of accident investigation, reasons leading to accidents, other related findings, and shortcomings on any quarter, remedial steps necessary to avoid recurrence of such accidents etc. are to be submitted subsequently as per statutory norms.

Immediate reports on any emergency situations as per Disaster Management Plan.

Report of malfunctioning or under-performing or breakdown of any units of the plant that takes place at any time during the currency of this Operation contract. All complaints / reports of malfunctioning or under-performing or breakdown of any units of the plant will be entered in a log book with date and time of lodging of complaint / report and thereafter the date and time of attending the complaint with details of repairs done to restore the unit / equipment / instrument / machine etc.

Report submission / reporting ways

Various aspects in submitting reports / records etc to OIL by the Contractor are:

All records / reports are to be submitted to OIL at stipulated frequencies in both hard copies and in soft format via flash drive / electronic mails with OIL's confirmation of mail-receipt. List of email ids shall be provided to the Contractor.

All hard copies of reports / records etc must be countersigned by all concerned persons of the Contractor.

Contractor shall have to submit some of the soft copies of reports / records etc as would be advised by OIL in editable format (for OIL's requirement of using the data) with OIL acknowledging the receipt of corresponding hard copies.

Reports / records etc in both forms are to be submitted during normal working hours (07:00am to 03:30pm) of a working day.

In case OIL's officers are unavailable at the plant, reports / records etc in both forms need to be submitted by 8:00am of the next working day.

Hard copies of reports/records etc must be well maintained / stored by Contractor.

OIL will have separate storing facilities for all hard copies of reports / records etc to be submitted by the Contractor at Administrative office under Factory Manager.

However, in most of the days under normal circumstances, there shall be only the Factory Manager or his representative at the plant. In such days, the Contractor under the supervision of their administrative officer shall store the hard copies of reports / records etc on behalf of OIL in presence of Factory Manager by engaging their office staff.

In case of report / records etc submitted by flash drive, virus-free conditions in all OIL's systems at control room are the Contractor's responsibility and Contractor will be accountable for any breakdown of systems on account of virus attack during data transfer.

Access to operations and Rights to Inspection & Information from the Contractor.
OIL in consultation with authorized representative of the Contractor shall at any point of time of the operations may:

Inspect all records, data generated from studies, files and other information kept by the Contractor. Have copies made of all data or information including lab analysis & charts.

Request and receive from the Contractor statements or status where reasonable as desired by OIL for any job pertaining to operation and maintenance.

Reports to Statutory bodies and approvals: The Contractor will submit all HSE related reports / records etc to the statutory bodies as required under various Acts, Regulations and guidelines issued by such bodies as and when required. In this regards, the various acts etc and the different statutory bodies are to be referred at clause no 2.4.

DETAIL SCOPE OF WORKS: MAINTENANCE:

BROAD SCOPE OF WORK: The broad scope of work under this CONTRACT is to maintain the following Equipment's / Facilities / Systems along with making provision of spares as per terms of this contract for smooth operation of CTF.

Safety PLC system & consoles and their associated systems and subsystems

Complete Tank Farm Management system (TFMS) with temperature and water cut measurement.

CCTV systems , subsystems and field installed cameras

clean agent system,

Fire alarm panel & detectors,

Packaged AC system,

UPS system for Power Backup, Control

Room Internal lighting system

SIL certified RADAR and SERVO Level gauges in each tank (Tank no 5,6 & 7)

ROSOV & MOV systems (for Tanks 5,6 & 7) - for automatic isolation of tank inlet & outlet. ROSOV ARE FAIL SAFE AND FIRE SAFE TYPE.

Online Gas Detector System ESD (Emergency shutdown system) from centralized control room & field PLC based Rim seal fire protection system.

HVLRM – High velocity long range monitors – Remote & Manual type - with control panels, MOV etc.

Routine maintenance of Fire water pumps, Jockey pumps & associated sub-systems inside pump house, related control system, electrical system and equipment/valves installed in the hydrant line Fire water tanks, sprinkler system and related valves/instruments

Foam system & Piping Network– pumps, tanks, valves and related E&I

Electrical Switch room with PMCC, ELDB, ACDB & MLDB panels, Transformers etc.

Electrical Earthing System.

All Field Instruments like PT, TT, Solenoid Valve, and Pressure switch, Pressure Gauge etc. Compressed

Instrument Air System – Compressor, dryer, related E&I, valves etc.

High Mast Lighting system and outdoor lighting near ROSOV/MOV panels outside dyke OWS system

Control Room, Fire pump house, Switch room, all sheds etc. in totality-Civil, AC & Lighting.

INSTRUMENTATION:

FOR CTF, DULIAJAN:

Comprehensive Annual Maintenance Contract (CAMC) shall include on site maintenance services for all instrumentation & Automation systems of Central Tank Farm (CTF) Duliajan including spares and consumables, tools/tackles as required for regular maintenance/preventative maintenance/breakdown maintenance, if any, for the following systems during the entire period of the contract and its extension, if any.

PLC (Programmable Logic Controller) based control system: Complete PLC system including barriers, multiplexers, hardware, other device interfaces, PLC Servers, TFTs, PCs& printers, marshalling panels etc. including supply of spares, consumables.

The PLC system is SIL-3 (Safety Manager) and supplied by M/s Honeywell Automation India Ltd. with redundant controller along with redundant I/O cards. The each PLC system have two terminal servers, two operator stations, one Engineering Station, One History Note PC with printers, one TFMS server and one TFMS SCADA Server, their subsystems and their interconnections as per system architecture designed and commissioned under MB Lal recommendation Project for CTF Duliajan.

The safety Manager PLC used for emergency shutdown for any Fire & Gas. PLC is interfaced with Honeywell SCADA package i.e. Experion Process Knowledge System (EKPS) through 10/100mpbs LAN connectivity.

The PLC has dual redundant processors with hot standby capability and redundant I/O system configuration. PLC has in built feature of self-diagnostics of hardware and program. The application of PLC system is as below.

For communication between processor and I/O, I/O-Extender is placed in I/O rack. Communications between PLC Processor and I/O modules have redundancy.

Honeywell Make Safety Manager PLC system with QPP-2 CPU's are used to execute action & alert plant persons in case of fire detection/Gas leakage. This PLC is mainly used for fire & Gas detection and alarming of various gas detectors. The operational logic is stored in this PLC. The operator station and Engineering station take the data from the PLC. USI(Universal Safety Interface) modules are installed in the processor racks. All I/O's are connected to the CPU through Daisy Chain topology.

Safety Manager typically consists of the following main components:

Cabinet enclosure with swing frame

Power supply consisting of power supply unit(PSUs) generating 24VDC, main switches and power distribution rails

Controller chassis with 2 Nos QPPs(Quadruple Processor Packs), 2 Nos of USI(Universal Serial Interface) communication modules, 2 Nos of PSU/s(Power Supply Units-24 V to 5 V supply modules) and 1 No of BKM(Battery and Key switch Module)

Input/output chassis

Field Termination assemblies(FTA) and/or terminals

Communication Network comprises of two Westermo switches in redundant state which are connected to the project LAN. TCP/IP is the protocol used for communication between the stations and PLC. Operator station and Engineering Station has one number dual port NIC Card for communication over the redundant LAN. Each node on the network has two TCP/IP addresses except printers.

Power supply to PLC system is through one set of redundant UPS system with battery backup

installed in the control room. The PSU-UNI2450U power supply in Safety Manager(SM) is a UL approved switch mode DC power supply which accepts wide range of input voltages to provide 24VDC/28 VDC.

The major field instruments/systems connected to SIL-3 PLC systems are the following for CTF Duliajan:

Servo Level Transmitter with Tank side indicators - 3 Nos Radar

Tank Level Transmitter with tank Side Indicators -3 nos

Fire Water Radar Tank Level Transmitter with Tank side indicators-2 Nos

Hydrocarbon Gas Detector- 3 Nos

Fire Water Flow Transmitter- 2 Nos Fire

Water Pressure Transmitter- 2 Nos TFMS

Pressure Transmitter- 3 Nos Inlet Line

Pressure Transmitter- 3 Nos

Air compressor Pressure Transmitter-2 Nos Air

Flow transmitter- 01 No

Actuators of Remote operated shut off valve (ROSOV) - 07 nos

Actuators of Motor operated Valve (MOV) for Auto/Remote operation from Control Room - 10 Nos Complete ESD(Emergency Shutdown systems) interlocks

Note to Clause No. 3.1.1: The above list is not exhaustive, but indicative only. The maintenance of all the PLC I/O Loops along with the field instruments terminated to it shall be in the contractor's scope. The control Room Servers, PCs, Display units and all accessories along with PLC controllers, Power supply units, I/O Cards, all Marshalling Panel Items, their maintenance, repair/ replacement/ upgradation etc. as and when required during the tenure of the contract shall be under contractor's scope. The preventive and breakdown maintenance of field instruments, their connecting junction boxes (JBs), terminal blocks and their accessories including the interconnecting cables/cable glands from PLC control panel through Junction boxes to field instruments shall be under the scope of this contract.

TFMS system: Total Tank Farm Management System (TFMS) and its sub-systems, TFMS servers including supply of spares, consumables.

Brief Description of TFMS System: The Tank Farm Management System (TFMS) is comprised of the following equipment including their interconnections

(a) Field equipment:

Radar Tank Level Transmitters -5 Nos

Multi-element averaging type Temperature elements (VITO) for each Radar Level Transmitter. Tank side Indicator at the tank bottom for each Radar Tank Level Gauges

Associated Field mounted Junction boxes and Power isolation switch and their interconnecting signal, power cables and cable glands etc.

b) Control room mounted Equipment:

Common interface Unit-CIU Prime: 2 Nos

Common interface Unit-CIU PLUS: 2 Nos

TFMS Servers (2Nos), Operator Workstations and PLC Engineering Workstation with all required software packages including peripherals such as TFT, Keyboard, Printers.

Hand Held configurator/calibrator for programming & configuration of Radar Gauges.

Note to Clause No.3.1.2: The scope of the contractor shall include but not limited to the following: The contractor shall carry out routine calibration & Configuration as required as per Original Equipment Manufacturer (OEM) recommendation and shall be included in each preventive maintenance jobs.

TFMS database software upgradation during the tenure of the contract as and when upgrade is issued by the OEM.

Calibration report shall be submitted to OIL for record after each calibration.

The spares as and when required for maintenance during the tenure of the contract including minor/major repair or replacement of a part or completely shall be under the scope of contractor. Any decommissioning/ re-commissioning jobs related to TFMS System if required arising out of need to undertake maintenance activities of the crude oil Tanks as planned by the Factory Manager (FM) during the tenure of the contract.

3.1.3 The broad scope of work under the maintenance contract shall include but not limited to

Routine/Preventive/Breakdown maintenance, configuration, calibration/checking, software updates,

decommissioning/re-commissioning if required for maintenance purpose etc. including repair/replacement of a part or whole as required during the tenure of the contract to keep the system functional.

THE CONTRACTOR MUST INCLUDE THE FOLLOWING IN THE MAINTENANCE PLAN:

PREVENTIVE MAINTENANCE: Contractor shall depute their qualified service engineers as per terms of this contract to installation site (CTF Duliajan) for regular system check-ups, general healthiness of the system (H/W, S/W, Power supply, calibration checks, solving of any reported problems etc.) as part of periodic maintenance including consumables required for normal maintenance purpose. Contractor shall also carry out complete overhaul of the system, inspection of HW/SW, major repairs, replacement and reporting. The contractor shall also give any other checks required for preventive maintenance and the same shall be included. Generation and submission of diagnostic reports shall also be done by the contractor. Any other jobs as recommended by OEM or as per statutory requirements during the period of the contract shall be also be included into the preventive maintenance plan.

Such preventive maintenance shall be carried out minimum four times in a year for each and every equipment under this contract (Quarterly).

The regular Routine preventive maintenance also includes Software Maintenance/Support as described below:

The Contractor shall maintain the existing operating & application software to improve upon performance of the system. Software modification and up gradation as & when required shall also be covered under this scope at no extra cost. During the contract period and its extension if any, if the systems require software release up gradation and same is necessarily required then same shall be provided without any additional cost implication to OIL. During the contract period and its extension if any, the system shall be also upgraded to its desired release to meet any requirement of OIL without any additional cost implication to OIL by the Contractor. The modifications required for taking care of statutory requirements shall also be Contractor's responsibility at no extra cost to OIL.

SOFTWARE ENHANCEMENT & SOFTWARE SUPPORT INCLUDING MINOR CHANGES IN GRAPHICS:

The Contractor will provide a comprehensive software maintenance and enhancement program for on- going support of the system under this contract. All updates, new releases of the software during the contract period and its extension if any shall be provided without any additional cost. Minor changes in existing graphics including pertaining addition of few equipment / facilities shall be also executed by Contractor at no extra cost.

ANTIVIRUS SOFTWARE SUPPORT: The Contractor will provide necessary antivirus software support including installation of updates under normal conditions and also if and when the system software gets affected virus / Malware attack under this contract without any additional cost.

BREAKDOWN MAINTENANCE: The contractor shall keep his maintenance team ready to attend any breakdown maintenance round the clock 365 days in a year. In this regard, the contractor shall maintain an office in Duliajan to attend any on call breakdown maintenance services 24/7 basis, 365 days in a year respectively. The contractor must submit contact details of the persons with office address to respective Factory Manager / Engineer – In – Charge of CTF, Duliajan before commencement of this contract. The contractor's Instrumentation crew shall visit the site CTF Duliajan daily during general shift for routine maintenance, inspections, and preventive maintenance adjustments and carry out corrective actions for various Systems.

The contractor shall depute their experienced service engineers to installation site to attend the engineering calls round the clock on receipt of the information from operation crew. The engineers deputed to the site shall be well qualified and experienced and as per terms of this contract.

REGULAR MAINTENANCE: The contractor should keep his maintenance team ready to attend any regular maintenance as and when required as assessed by the contractor or OIL for smooth running of the PLANT.

REGULAR SOFTWARE UPGRADES: Contractor's scope shall include supply of all software upgrades of the PLC and TFMS system released by OEM for system performance enhancement and system performance improvement at no extra cost.

Note: Replacement of all spares, consumables as required during preventative or breakdown maintenance shall be in contractor's scope.

OEM SERVICES: To provide the comprehensive maintenance services described under clause Nos 3.1.1, 3.1.2, 3.1.3 & 3.1.4 for all the instrumentation Systems and their accessories installed and commissioned under MB Lal Recommendation project for CTF Duliajan, the contractor shall depute experienced and competent instrumentation personnel.

In addition, the contractor shall also enter into Comprehensive Annual Maintenance Contract with the OEMs for on-site comprehensive support or shall have similar tie up / back-to-back contract/ other arrangements with the OEMs for the following four vital instrumentation systems for OEM services as required which shall be valid during the period of the contract and its extension(if any) to ensure trouble free maintenance as per terms of this contract :-

Safety PLC systems: Make :Honeywell (M/s Honeywell Automation India ltd) TFMS

system: Make: Honeywell-Enraf (M/s Honeywell Automation India ltd) CCTV

System : Make: Honeywell (Honeywell Automation India Ltd)

UPS: Make: Hitachi-Hirel

In case the contractor's service Engineer fails to restore the systems/subsystems and OEM services are required the contractor shall obtain services from OEM competent Engineers within 24 hours of reporting of such incident by operation Engineer of CTF Duliajan, failing which penalty shall be imposed as per contract clause no 5.0.

In this regard, it is obligatory for the contractor to have their own CAMC/ on-call spare and service arrangements with OEMs, as a part of this maintenance contract.

Spares Management:

The contractor shall store minimum number of spare modules at site for the OIL's usage under normal plant running or to be used during preventive and breakdown maintenance. A list of such critical spares proposed to be kept at site is to be provided by the contractor before commencement of work. The details of activity for any type of maintenance are to be mentioned by the contractor.

The contractor shall prepare explicitly a maintenance Plan, the various checks to be carried out by the engineer for the above listed items. Also a standard document consisting of standard procedures and formats for carrying out various activities of this Contract shall be furnished for OIL's approval. The contractor service engineer shall maintain a Service Logbook at the site indicating the activities carried out during preventive & breakdown maintenance and also submit service reports based on the maintenance / repairs carried out, modules / parts repaired / replaced along with fault analysis. The contractor shall submit such report on monthly basis.

Tools and Tackles: All tools and Tackles including measuring & calibrating equipment, as required for carrying out the jobs as per detailed maintenance plans shall be in contractor's scope. The Master Equipment used for calibration shall have valid traceability certificates to National Standard.

The Contractor shall maintain a stock of necessary critical spares required at site, which shall be replenished after consumption.

The contractor shall find a copy of the following documents with the respective Engineer – In – charge
Datasheets of the all the instrumentation systems like PLC system, TFMS and their associated systems /subsystems, Field instruments and packaged instruments installed under MB Lal recommendation projects in CTF Duliajan

P& ID of Instrumentation systems

Operation & Maintenance Manuals

Cable schedules, Cable termination details etc.

Based on above data, the contractor shall prepare a detailed maintenance Plan (routine / preventive / breakdown) as per terms of this contract for OIL's approval.

The details of clauses described above are general guideline of the maintenance and does not limit the scope of work of the contract to include any other jobs/services as required for trouble free maintenance of CTF Duliajan. Any further works required for smooth functioning of PLC/TFMS system along with all its associated systems, subsystems, field instruments etc. shall be executed/arranged by the contractor to minimize the overall breakdown of the system and thereby enabling smooth trouble free operation of the CTF, Duliajan at no extra cost to OIL.

: Instrumentation Equipment/Field Instruments list

Field Instruments:

Sl No	Instrument Description	Make	Model	Range	Qty
1	Pressure Transmitter-Water line	Honeywell	STA74L-E1G000-1-C-AHC-11C-B-31A6-F1-000	0-35Kg/cm2	2
2	Pressure Transmitter-TFMS(With Remote Seal Type)	Emerson Rosemount	3051TG2A2B21AI1D4M5Q4S1+1199WDA95AR TW30DAA7	0-10 KG/CM2	3
3	Temperature Gauge	H. Guru	68QSWS3	0-100 Deg C	3
4	PRESSURE TRANSMITTER(TFMS)	EMERSON(ROSEMOUNT)	3051L3AG0MD21AADF KSD4T1Q4M5	(-)2.5 to 2.5 Bar	3
5	FLOW TRANSMITTER with Flow Element 101-FE-1201(PITOT Tube Make Star-Meck)	HoneyWell	STD720-EIHS4AS-1-C-AHC-11C-B-11A0-F1-0000	130-3826 cum/hr	2
6	PRESSURE GAUGE	H.GURU	6PSSWS2	0-25 kg/cm2	11
7	SERVO LEVEL GAUGE with displacer Model No. S0815350	HoneyWell-Enraf	UIAV854C11A2*K*W/Z		3
8	RADAR TANK LEVEL GAUGE	HoneyWell-Enraf	Flexiline RHVBVRZ-ASS0805/Z		3
9	SERVO TANK SIDE INDICATOR (TSI)	Honeywell	TSI 977		3
10	RADAR TSI FOR CRUDE OIL	Honeywell	Smartview		3
11	RADAR TANK LEVEL GAUGE for Fire water Tanks with TSI	HoneyWell-Enraf	Flexiline RHVBVRZ-ASS0805/Z		2
12	Temperature Sensor (VITO)	Honeywell	UBAN768C11800950/Z		3
13	ROSOV Pneumatic Actuator	PENTAIR	SL NO:- 14138314P05530GP		7
14	MOV Actuators	AUMA			10
15	Gas Detector	CROWCON	IRmax		3
16	Pressure Switch(Set Point 6 Kg/sq.cm)	SWITZER			2

Packages Instruments: Air Compressor and Air Dryer Package have two instrument air compressors and one air dryer package. All the instrumentation systems of air compressor and air dryer package instruments are in the scope of this contracts. An indicative list of the instruments are given below:

A: Instrument Air Compressor area-Wet & Dry Air Receiver Vessel and Air Discharge Line

Sl No	Description	Make	Model	Range	Quantity
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1	Pressure gauge	H.Guru	HGI 370.V.E 016 1666	0 to 16 kg/cm2	1
2	Flow transmitter	Honeywell	STD720E1AC4AS-1-C-AHC-11CB-61A6-F1-0000	-400 to 400 In H2O	1
3	Pressure transmitter	Rosemount	3051CG4A22A1AM5B4 DFE8D424	0 to 16 kg/cm2	2
4	Pressure gauge	H.Guru	HGI.285(R)V.D.015.245	0 - 25 kg/cm2	1
5	Temperature gauge	H.Guru	HGI.373 V.F.016.2621	0 - 100 Deg C	1
6	Pressure gauge	H.Guru	HGI.372.V.E.016.1673	0 - 16 kg/cm2	1
7	µ Controller	Kirloskar	211.11.258.50		1

B: Instrument Air Dryer Package Model:SA0200MN Make-Summits

SL NO	Name of Inst.	Model No	Make	Range	Quantity
1	Pressure gauge	HGI.285(R)V.D.015.245	H.Guru	0 - 25 kg/cm2	1
2	Pressure Switch	ZDDW	Baumer	0.1 - 1 kg/cm2	2
3	Pressure Gauge	2243PG140030	Baumer	0-16 kg/cm2	8
4	Diff Pressure Gauge	2243PG140035	Baumer	0-1 kg/cm2	2
5	Temperature gauge	2243TG140007	Baumer	0-100 Deg C	7
6	Temperature gauge	HGI.2851(R).V.F015.2195	H.Guru	0-100 Deg C	1
7	Pneumatic Actuator	ECF80	Rotex	Max Pressure = 8 Bar	3
8	Limit Switch	DXLW1A2-4R	Rotex	Contact Rating =5 amp.	3
9	Solenoid Valve	M45H,24 V	Avcon	2 -10 Bar	3
10	Solenoid Valve	M50H,24 V	Avcon	0-7 Bar	1
11	Auto Drain Valve	---	Summits	Max Pressure = 10 Kg/cm2	1
12	Air Filter Regulator	---	Janatics	Max Pressure = 10 Bar	1
13	Lubricator	---	Janatics	Max Pressure = 10 Bar	1

SERVERS/WORKSTATIONS/PRINTERS:

Sr. No	Description	Make	Model	Quantity
1	TERMINAL SERVER	MOXA	CN2650I-8	2
2	HISTORY NOTE PC with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1

3	PLC ENGG STATION with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1
4	PLC OPERATOR STATION with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1
5	PLC OPERATOR STATION with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1
6	CCTV PROGRAMMING PC with 52" LED TV	DELL	DELL Optiplex 3020	1
7	TFMS PC with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1
8	TFMS SCADA with 22" Colour TFT Monitor	DELL	DELL Optiplex 3020	1
9	LASER PRINTER-A3(Connected to History Note PC)	CANON	LBP3500	1
10	LASER PRINTER A-4	HP	LaserJet Pro P1108	2

CIU Hardware & Software:

Sr. No	Description	Make	Model	Quantity
1	CIU PRIME with TFMS Software	Honeywell-Enraf	U**T8808BZZZ Z ZZ	2
2	CIU PLUS with TFMS Software	Honeywell-Enraf	U*SP8808RRZZZ Z	2
3	Portable Enraf terminal	Honeywell	U**847AA	1
4	HART Calibrator	Honeywell	MCT404-XI-00-UM	1

Components of PLC systems:

PLC Panel 101-SC#01

Sr. No	Description	Make	Model Code	Qty.
	CABINET SECTION			
1	Swing Frame Rittal2342.200, RAL 7035	RITTAL	SRTL10002342.35	1
2	Swing Frame MTG kit SR1997.200	RITTAL	SRTL10001997.35	1
3	Swing Fame Locking Bracket 135 mm	RITTAL	PS4808009-AVP-DH35	1
4	Cabinet Fan Assembly	Honeywell	SMOD3611001	1
	SYSTEM-CP			
1	Chassis for Control processor	Honeywell	FS-CPCHAS-001	1
2	Enhanced Performance Quad Processor Pack	Honeywell	FC-QPP-0002	2
3	Universal Safety Interface	Honeywell	FC-USI-0002	2
4	Power Supply Unit 24/5 VDC, 16 A	Honeywell	FC-PSU-240516	2
5	Battery and Keyswitch Module	Honeywell	FC-BKM-0001	1
	SYSTEM-IO			
1	Chassis for redundant I/O Modules	Honeywell	FC-IOCHAS-0001R	6
2	FC-HD Analog I/P Module(24VDC,16 CH)	Honeywell	FC-SAI-1620m	6

3	FC-Digital I/P Module(24 VDC,16CH)	Honeywell	FC-SDI-1624	38
4	FC-Digital O/P Module	Honeywell	FC-SDO-0824	46
5	Coverplate for I/O Chassis(FS-BLIND-CHAS1HE)	Honeywell	FS-BLIND-CHAS1HE	1
6	Coverplate for I/O Chassis(FS-BLIND-CHAS3HE)	Honeywell	FS-BLIND-CHAS3HE	1
7	Coverplate for I/O Chassis(FS-BLIND-CHAS4HE)	Honeywell	FS-BLIND-CHAS4HE	2
8	Blind Module for NOT USED Slots in CPCHAS	Honeywell	FS-BLIND-COM	2
9	Blind FRNT for unused slots IOCHAS, Wide 4TE	Honeywell	FS-BLIND-IO	24
10	IO Extender	Honeywell	FC-IO-0001	12
	COMMUNICATION BUS			
1	Communication Cable Internal between DCOM-CPCHAS	Honeywell	4217015	2
2	Set Ethernet Cable Internal SFTP, 1Y/1G	Honeywell	FS-CCI-HSE-02	2
3	Power Distribution Cable	Honeywell	FS-PDC-MB24-2	1
4	Power Distribution Cable CPCHAS24VDC(PDC-CPSET)	Honeywell	FS-PDC-CPSET	1
5	Power Distribution cable Set IOCHAS-001 24 VDC INT PWR+EXT PWR	Honeywell	FS-PDC-IOSET	6
6	I/O BUS from CPCHAS to IOCHAS	Honeywell	FS-IOBUS-CPIO	2
7	Power Distribution Cable IOCHAS-0001R 5VDC WD	Honeywell	FS-PDC-IOR05	6
8	Bus Terminator for Redundant I/O	Honeywell	FC-TERM-0002	1
9	System Interconnection Cable term. On PIN (SIC interface Cable)	Honeywell	FS-SICC-0001/L8	45
	NETWORK			
1	Communication Interface FTA for RS232 and RS 485	Honeywell	FC-DCOM-232/485	1
2	WESTERMO Ethernet Switch-5 Port	WESTERMO	SDW-550EC	2
	OTHERS			
1	System PS I/P 115/230VAC, O/P 24VDC,50A.....230VAC input from UPS	Honeywell	FC-PSU-UNI2450U	2
2	Earth Leakage Detector	Honeywell	10310/3/ICC	2
3	Power Busbar Max. 200A 24/48/110VDC, 150CM	Honeywell	FS-MB-001	1
4	10A DP MCB for 240V AC system Power Supply(M1, M2)	SIEMENS		2
5	6A DP MCBfor 230V AC NON UPS Fan Supply(Q1)	SIEMENS		1
6	UK5 HESI Terminals for ELD Power + Terminal Server+ Westermo Switch(IPT)	PHOENIX		16
7	UK10N-E(GREY) for 240 AC UPS Power Supply to PS01(ICB1, ICB2)	PHOENIX		12

8	UKION-E Terminal for 230V AC Non UPS Power Supply(UT1)GREY	PHOENIX		3
9	UK2.5B-E GREY Terminals for Alarm wiring(ATB-1)	PHOENIX		16
10	DFBK#12 Type Bus Terminal for 24VDC Power distribution(BT-4)	PHOENIX		1 SET
11	Door Switch(DS-1)			1
12	Tubelight(TL-1)	PARISHRAM		1
13	Fan assembly230 V	PARISHRAM		1
14	Utility Board(UTB)	UL		1
15	Thermostat			1
	SOFTWARE			
1	SAFETY BUILDER R151 Software	Honeywell	FS-SMSB-ST-151	1
	BASIC +KB140			

PLC Panel 101-MC#01

Sr. No	Description	Make	Model Code	Qty.
1	Rittal Cabinet	RITTAL		1
2	DI FTA for DI Module -24VDC,16 CH(A01-A16)	HONEYWELL	FC-TSDI-1624	16
3	DI RTP(RA08-RA15)	UL	UL24D16DIFI-2C-TB MY2-VF	8
4	Utility Board	UL		1
5	230V Tubelight(TL1, TL2)	PARISHRAM		2
6	230V Fan Assembly	PARISHRAM		2
7	Door Switch			2
8	Terminals for Non-UPS 230V AC	PHOENIX	UK10N	3
9	DP MCB of 6A for 230V AC	SIEMENS		1
10	DFBK-12 Power Terminals for 24 VDC Distribution	ELMEX	DBFK-12	1 Set
11	Grey Terminals for Alarm wiring	PHOENIX	UK2.5B-E	4
12	Field Terminals for Signals(Fused)-TB A01-A07 & TB A16	PHOENIX	UK5 HESI(500mA)	124
13	Field Terminals for Signals(Non-Fused)-TB A01-A07 & TB A16	PHOENIX	UK2.5B-E	124

PLC Panel 101-MC#02

Sr No	Description	Make	Model Code	Qty.
1	Rittal Cabinet	RITTAL		1
2	DO FTA Safe Digital Output FTA(24VDC,08 Channels)-B01-B17	HONEYWELL	FC-TSDO-0824	17
3	AI FTA for AI Module(24VDC,16 CH)-C01	HONEYWELL	FC-TSAI-1620M	1
4	AI FTA for AI Module(24VDC,16 CH)-C02	HONEYWELL	FC-TSGAS-1624	1

5	DO RTP(RB 07-RB17)	UL	UL24D08(OFI)-2CMY2N(24VDC)	11
6	SIL3 Relay(RB01- RB06)	P&F	KSDO-RSH-1.4S.PS2	48
7	Utility Board	UL		1
8	230V Tubelight(TL1, TL2)	PARISHRAM		2
9	230V Fan Assembly	PARISHRAM		2
10	Door Switch			2
11	Terminals for Non-UPS 230V AC	PHOENIX	UK10N	3
12	DP MCB of 6A for 230V AC	SIEMENS		1
13	DFBK-12 Power Terminals for 24 VDC Distribution	ELMEX	DBFK-12	1 Set
14	Grey Terminals for Alarm wiring	PHOENIX	UK2.5B-E	4
15	Field Terminals for Signals(Fused)- TB B01-B06	PHOENIX	UK5 HESI(500mA)	48
16	Field Terminals for Signals(Non-Fused)-TB B01-B06	PHOENIX	UK2.5B-E	48
17	Field Terminals for signals (Fused)- TB C01& C02	PHOENIX	UK5 HESI(500mA)	24
18	Field Terminals for signals (Fused)- TB C02	PHOENIX	UK5 HESI(100mA)	11
19	Field Terminals for Signals(Non-Fused)-TB C01& C02	PHOENIX	UK2.5B-E	24

PLC Panel 101-MC#03

Sr. No	Description	Make	Model Code	Qty.
1	Rittal Cabinet	RITTAL		1
2	AI FTA for AI Module(24VDC,16 CH)-C03	HONEYWELL	FC-TSAI-1620M	1
3	DI FTA for DI Module(24VDC,16 CH)- A17-A19	HONEYWELL	FC-TSDI-1624	3
4	DO FTA for DO Module(24VDC,08 CH)-B18-B23	HONEYWELL	FC-TSDO-0824	6
5	AI Barrier –ZC03	P&F	KFD2-STC4-Ex1	11
6	DI Barrier(ZA17- ZB23)	P&F	KFD2-SR2-Ex1.W.LB-Ex1	48
7	DO Barrier(ZB18-ZB23)	P&F	KFD2-SL2-EX1.LK-Ex1	46
8	Utility Board	UL		1
9	230V Tubelight(TL1, TL2)	PARISHRAM		2
10	230V Fan Assembly	PARISHRAM		2
11	Door Switch(DS1,DS2)			2
12	Terminals for Non-UPS 230V AC	PHOENIX	UK10N	3
13	DP MCB of 6A for 230V AC	SIEMENS		1
14	DFBK-12 Power Terminals for 24 VDC Distribution	ELMEX	DBFK-12	1 Set
15	Grey Terminals for Alarm wiring	PHOENIX	UK2.5B-E	4

16	Field Terminals for Signals(Fused)-TB C03	PHOENIX	UK5 HESI(500mA)	11
17	Field Terminals for Signals(Non-Fused)-TB C03	PHOENIX	UK2.5B-E	11
18	Field Terminals for signals (Fused)- TB A17-A19	PHOENIX	UK5 HESI(500mA)	48
19	Field Terminals for signals (Non-Fused)- TB A17-A19	PHOENIX	UK2.5B-E	48
20	Field Terminals for Signals(Fused)-TB B18 – B23	PHOENIX	UK5 HESI(500mA)	46
21	Field Terminals for signals (Non-Fused)- TB B18-B23	PHOENIX	UK2.5B-E	46

PLC Power Distribution Panel 101-PDB#01

Sr. No	Description	Make	Model Code	Qty.
1	Rittal Cabinet	RITTAL		1
2	Cabinet Fan assembly with alarm	Honeywell	SMOD3611001-01	2
3	Digital Current Meter			2
4	Digital Voltage meter			1
5	Indicator			2
6	Current Transformer			2
7	MCCB	SEIMENS		2
8	4A 2P MCB	SEIMENS		2
9	2A 2P MCB	SEIMENS		49
10	10A 2P MCB	SEIMENS		3
11	Bus Bar for 240 VAC			2
12	Door Switch			2
13	HRC Fuse			1
14	Terminals	ELMEX		108
15	Short Link			2

Networking Panels 101-NW#01

Sr. No	Description	Make	Model Code	Qty.
1	Rittal Cabinet	RITTAL		1
2	Cabinet Fan assembly with alarm	Honeywell	SMOD3611001-01	2
3	1U Blanking Plate	RITTAL		7
4	1U Cable Management	RITTAL		4
5	19" Mounting	RITTAL		7
6	Ethernet Switch	D-Link	D-Link-DES-3200-18	3
7	Terminal Server	MOXA	CN2650I-8	2
8	CIU Prime	Honeywell-Enraf	U**T880BBBBZZZ	2
9	CIU Plus	Honeywell-Enraf	U**SP880RRZZZZZ	2
10	DVR	Honeywell	HD-DVR-7016	1
11	Utility Socket			10
12	Terminals for UPS 110VAC	PHOENIX	UK10N	30
13	Terminals for Non-UPS 230VAC	PHOENIX	UK10N	6
14	Alarm Terminals	PHOENIX	UK2.5B-E	8

15	Utility Board	UL		1
16	Door Switch			2

Mandatory Spare list:

The contractor must maintain mandatory spares as per the following list for CTF Duliajan. However, the contractor shall assess the requirement and add more spares to this list as required as per maintenance plan.

SL No	Field Instruments	Make	Description	Qty	UOM
1.0	Field Instruments				
1.1	Gas Detectors	Crowcon	Model - Irmx	3	NOS
1.2	Willo Panel PCB Card	Willo	Model: PCB314A	2	NOS
1.3	Bridge Rectifiers			6	NOS
1.4	Radar Gauge Power Supply Card	Honeywell Enraf		2	NOS
1.5	Radar Gauge DO cards	Honeywell Enraf		2	Nos

: Failure to maintain the Instrumentation System in smooth operational condition along with carrying out the scheduled maintenance and breakdown maintenance penalty will be imposed as per Penalty Clause no. 5.0.

Exclusions:

The maintenance of Printer Cartridges/ Toner Inks for Printers under part III of section 3.1.8 shall not be under the scope of the contractor.

UPS battery (For the TFMS system and Ream Seal system) : Replacement in case of fault shall be excluded from the scope of the contractor and shall be done by OIL.

PLC battery for backup (if any)

3.2 INFORMATION TECHNOLOGY:

CCTV system: CCTV System, sub-systems including supply of spares (if required), consumables. CCTV package of CTF Duliajan consists of the following along with interconnecting cables and accessories
High speed Explosion proof cameras- 5 nos.

Video Converter Transmitter & Receivers - One set for each camera One digital video recorder (DVR) – One No.

Joystick control – One No.

One 55inch LED Monitor – One No.

Network Switch - One No.

Programming PC - One No.

In addition, the contractor shall also obtain an Comprehensive Annual Maintenance Contract with the OEMs or shall have tie up/arrangements with the OEMs for the CCTV systems (Make Honeywell), for OEM services which shall be valid during the period of the contract and its extension if any so as to ensure trouble free maintenance as per terms of this contract.

In case the contractor's service Engineer fails to restore the systems/subsystems and OEM services are required the contractor must obtain services from OEM competent Engineers within 24 hours of reporting of such incident by operation Engineer of CTF Duliajan. In this regard, the contractor must make arrangements with OEMs for AMC/ on-the-call- services as a part of this maintenance contract.

Information Technology Equipment/Field Instruments list of CCTV SYSTEMS:

Sr. No	Description	Make	Model	Qty
1	HD-DVR(High Definition Digital Video Recorder)	Honeywell	HD-DVR 7016	1
2	55" LED MONITOR	Samsung	DB55D	1
3	Joystick	Honeywell	HD-JC-010	1

4	Data Link Network Switch	D-Link	D-Link DES-105	1
5	CCTV Camera	Honeywell	NEXPTZ2364PA	5
6	CCTV Fibre optic Cable -6 core(As per EIA/TIA 492)IEC 60793,IEC 60794, ITU-T, G.652. (Single mode multi fibre carrier armoured).-as required			1 lot

Mandatory Spare list: The contractor shall assess the requirement and submit the list to OIL as required as per maintenance plan.

Failure to maintain the Information Technology System in smooth operational condition along with carrying out the scheduled maintenance and breakdown maintenance will impose a penalty as per Penalty Clause no 5.0

EXCLUSIONS:

Printer cartridges

ELECTRICAL SYSTEMS

Electricals and Illumination:

Electrical power shall be made available by OIL. Electrical power to all electric drives & area illumination for the tanks and process areas will be provided from the same source of power.

All the electrical jobs shall be carried out under direct supervision of competent and experienced Electrical Engineer. The Electrical Engineers & technicians engaged in the jobs should possess valid requisite Electrical licenses/certificates and permits issued by State Govt. Electrical Licensing Board.

The Electrical scope of work shall be as follows:

The operator's electrical works cover all that is required for maintenance of all electrical drives/ items & illumination of the proposed project including area/street lighting.

All earthing on panels, HVLRM system, High Mast must be checked and recorded regularly. Clamping / supports / fixing to rack or hanger / straps etc for exposed cable laying must regularly be checked for looseness / excessive tightness damaging to insulations.

Earthing system needs to be maintained and measured as per Central Electricity Authority Regulations, 2010 and National Electricity Codes – 1985. The operator shall regularly measure the respective earth resistance value of all earth pits and indicate the same with date. The earth pit numbers shall be maintained in a prominent way.

Inside illumination of all the sheds/ buildings shall be maintained. Road lighting & Periphery / boundary lighting shall be maintained. High mast lighting for entire area of the plant shall be maintained.

OIL approved Maintenance Schedule for Electrical Equipments shall be provided to contractor.

Maintenance shall include Routine, breakdown & schedule maintenance and repairing, servicing of all electrical equipment of Central Tank Farm (CTF) Duliajan including tools/tackles as required for regular maintenance as well as breakdown maintenance if any for the following systems during the entire period of the contract and its extension if any.

Electrical Maintenance scope of work shall include:

Carrying out preventive, predictive as well as breakdown maintenance of equipment such as Packaged AC systems, UPS system for power Backup, HVLRM remote and manual type with control panels, MOV, Electrical switch room with PMCC, ELDB, ACDB & MLDB panels, Transformers, Electrical earthing systems, High Mast lighting Systems, outdoor lighting, Street & peripheral lighting etc. as per indicative list of equipment enclosed, as well as per instruction of OIL's engineers from time to time. Carrying out routine maintenance of Fire pump panels, batteries. All maintenance jobs are to be carried out under the supervision of an engineer employed by the contractor for the purpose of monitoring the Tank Farm facility's maintenance. The contractor should ensure that all the maintenance jobs are carried out as per OIL's Maintenance Schedule and OEM's recommendations.

High Mast Lighting

Each mast is complete with suitable winch & steel rope, lantern carriage, aviation obstruction lights, heavy duty lightening arrestor, earthing terminals, junction box (es), feeder pillar and Luminaries.

Luminaries are fitted with suitable lamp housing and control gears for 2 X 400 W HPSV lamps in total 12 (twelve) nos. of fittings. Regular maintenance to be undertaken.

HVLRM System: HVLRM system consists of motors for Left/Right movement; up/down movement; Jet/Spray.

Regular maintenance of HVLRM motors, control & power circuit cables. Maintenance of starter panels to be undertaken.

UPS Panels & Battery Banks: The system provides back-up power to control system: Regular maintenance of battery & panels to be undertaken.

Switch Room Panels: Regular maintenance of switch room panels to be undertaken.

The replacement of Batteries associated with 3.3.2.3 shall not be under the scope however the periodic maintenance of these Batteries will fall under the scope of the contractor.

Failure to maintain the Electrical System in smooth operational condition along with carrying out the scheduled maintenance and breakdown maintenance penalty will be imposed as per Penalty Clause no. 5.0.

: Minimum Electrical spares: (To be maintained at CTF Duliajan)

S/No	Location / Equipment Details	Component	Make/Model	Rating	Qty	UOM
1	35KV UPS Spare	System Control Card	HITACHI HiREL	Compatible	1	NOS
2	BLUESTAR AC UNIT MODEL NO DPAP19 83R1 – I	V Belt (Wet Grinder Belt)	Ecodrives/A2 8		10	NOS
3	High Mast Light	SONT Lamps	Bajaj/Philips	400W/400 W SONT Lamps	24	NOS
4		Cleaning agents			8	NOS

TENTATIVE ROUTINE MAINTENANCE SCHEDULE OF ELECTRICAL EQUIPMENT
(EQUIPMENT WISE):

SL. NO.	TYPE OF MAINTENANCE	NATURE OF MAINTENANCE/ INSPECTION	PERIOD						RECORD / DOCUMENT IN	REMARKS	
			EVERY SHIFT	DAILY	F'NIGHTLY	MONTHLY	YEARLY	OTHERS			
1	LIGHTING TRANSFORMERS										
	Routine	Check for load	✓							Shift log book	
		Check for overall cleanliness		✓						Daily work progress register	
		Check for overheating		✓		✓				Daily work progress register	
	Preventive	Cleaning thoroughly				✓				Equipment maintenance register	
		Checking IR Value including cables					✓			Equipment maintenance register	
		Tightening of connections					✓		Equipment maintenance register		
2	A. C. MOTORS:										
	Routine	Check for overheating		✓						Shift log book	
		Check for abnormal noise and vibration		✓						Shift log book	
		Check for overall cleanliness		✓						Shift log book	
		Cleaning				✓				Equipment maintenance register	
		Greasing					✓	✓		Equipment maintenance register	As required
		Connections (tightening)					✓	✓		Equipment maintenance register	As required
	Preventive	IR Value								Commissioning report	
		Operation of HVLRM motors (UP/DOWN, LEFT/RIGHT)			✓					Equipment maintenance register	
		Checking of flange gap and shaft gap of FLP motors						✓		Equipment maintenance register	

SL NO.	TYPE OF MAINTENANCE	NATURE OF MAINTENANCE/INSPECTION	PERIOD						RECORD / DOCUMENT IN	REMARKS	
			EVERY SHIFT	DAILY	F/NIGHTLY	MONTHLY	YEARLY	OTHERS			
3	LT AC PANEL PMCC/MLD8/EPD8/High mast panel										
	Routine	Operation of emergency lights.	✓							Shift log book	
		Overheating of Panels (from outside)	✓								
		Cleaning of panels (Outside, including floor mats)		✓							
		Check for external damages				✓				Equipment maintenance register	
		Check for effectiveness of ventilation system				✓					
		Check for corrosion effect (external and internal)				✓				RCD test record register	
		Testing of RCDs				✓					
	Preventive	Cleaning panels (interior)				✓			✓	Equipment maintenance register	Subject to availability of shutdown
		Checking of panels				✓			✓		
		Tightening of all connections including TBs				✓			✓		
		Check cable TBs				✓					
		Check for overall cleanliness				✓			✓		
		Check breaker handle ok or not				✓					
		Check for accessibility of maintenance/operation				✓					
	Major overhauling							✓	✓	✓	

SL NO.	TYPE OF MAINTENANCE	NATURE OF MAINTENANCE/INSPECTION	PERIOD						RECORD / DOCUMENT IN	REMARKS	
			EVERY SHIFT	DAILY	FINIGHTLY	MONTHLY	YEARLY	OTHERS			
4	AIR CONDITIONERS:										
	Routine	Checking for proper operation	✓						Shift log book		
5	EARTHING:										
	Routine	Checking all connections			✓	✓		✓	Equipment maintenance register	• or as required	
		Measurement of earth resistance						Six monthly	Commissioning Report		
6	CABLES: CABLE/CABLE DUCT/TRENCH/SUPPORT										
	Routine	Check for cleanliness						✓	Six monthly*	Equipment maintenance register	• or as required
		Check for sealing cable trenches/ducts (prevention of foreign materials, vermin, water, chemicals, dirt, reptiles, into trenches/ducts)						✓	Six monthly*	Equipment maintenance register	• or as required
	Preventive	Checking of IR Value						✓	As required	Equipment maintenance register	
		Checking of overheating						✓	✓	Equipment maintenance register	
		Check for damages to cables, conduits, wires, clamps, cable supports; Check for corrosive effects on conduits & junction box						✓	✓	Equipment maintenance register	
7	LIGHT FITTINGS (Including high mast systems)										
	Routine	Checking and cleaning				✓		✓	Six monthly*	Daily work progress register	• operation of lantern carriage of high mast
		Replacement of bulb, LED/IGT, ballast etc.							As reqd	Shift log book	
8	UPS AND BATTERY										
	Routine	Cleaning of cabinet					✓	✓		Equipment maintenance register	
	Preventive	Checking of Battery bank voltage			✓	✓				Equipment maintenance register	

MECHANICAL SYSTEMS:

Maintenance shall include Routine, preventive/schedule/breakdown maintenance and repairing, servicing of all mechanical equipment of Central Tank Farm (CTF) Duliajan including tools/tackles as required for regular maintenance as well as breakdown maintenance if any for the following systems during the entire period of the contract and its extension if any.

Mechanical Maintenance scope of work shall include:

Carrying out preventive, predictive as well as breakdown maintenance of equipment such as rotary gear type foam pumps, Submersible water pumps, Air Compressor units, Air drier units, Static vessels, all Valves in the network etc as per indicative list of equipment enclosed, as well as per instruction of OIL's Engineers from time to time. All maintenance jobs are to be carried out under the supervision of an engineer employed by the contractor for the purpose of monitoring the Tank Farm facility's maintenance. The contractor should ensure that all the maintenance jobs are carried out as per Maintenance Schedule of OEM's recommendations. Maintenance shall also include routine maintenance of Diesel Engines, Centrifugal Fire water/Jokey pumps.

Indicative list of Major Mechanical Equipment for maintenance:

Equipment	Qty (no)	Make, Model & Type	Ratings & Capacity
FW Diesel Engines	6	Greaves Cotton Ltd, TBD3V8 II	295 KW, 1500 RPM
Foam Diesel Engine	1	Kirlosker, HA 494	1500 RPM
FW Pumps	6	Mather & Platt Pumps Ltd. (Wilo), 8/10DME, Centrifugal	616m ³ /hr, 1500 RPM
FW Jockey Pumps	2	Mather & Platt Pumps Ltd. (Wilo), Centrifugal,	130m ³ /hr, 2955 RPM
Foam Pumps	2	MX System, RDZx1-300-L, Rotary Gear Pump	27m ³ /hr, 1500 RPM
Make up water pump	2		50 m ³ /hr, 1500 RPM
Air Compressors	2	Kirloskar Pneumatic Pvt. Ltd., KES 37-10C, Screw Type Compressor	5.86 m ³ /min, 10 bar.
Air Dryer	2	Summit Hygronics, SA020DMN,	265 nm ³ /hr, 8.5 kg/cm ²
Plant Air receiver	1	Fabtech Projects & Engineers Ltd.	5.5 to 7 kg/cm ²
Instrument Air receiver	1	Fabtech Projects & Engineers Ltd.	5.5 to 7 kg/cm ²

General CHECK LIST FOR MECHANICAL MAINTENANCE PERSONNEL:

EQUIPMENT: Diesel Engine (Fire water & Foam)

FREQUENCY: As per OEM recommendations and

CONTRACTOR

COMPANY

Daily:

ACTIVITY:

1.0 Check the operator's daily reports

Investigate and correct reported cases of Low engine oil pressure

Low power

Abnormal water or oil temperature Excessive smoke

Misfiring

Unusual engine noise / vibration

Excessive consumption of engine oil

Contamination of engine oil

Leakage of coolant, fuel, water, engine oil or air

Coupling wear / damage

Loose foundation bolting

Dirty / clogged air cleaner element

Adjust Clutch

Any other reportable condition

Every 500 hours

Repeat daily checks

Check and adjust belt tension - replace belts if necessary

Check engine coolant and corrosion resistor / de-scaling additives, replace if necessary.

Clean air filter elements and filter housing with compressed air Check all wires for frayed / damaged insulation - replace if necessary Check all connections to ensure that they are proper

Check all gauges for proper operation- replace defective gauges

Check throttles linkages for looseness of lock nuts / bolts.

Lubricate actuator control linkage rod and bearings

Clean crankcase breather

Check clutch & adjust if required

Externally clean engine and surroundings with water & detergent Every 1000 hours

Repeat daily and 500 hr checks

Drain engine oil, clean crankcase and refill fresh engine oil Replace hydraulic governor oil

Replace oil filter elements after cleaning the filter housing

Clean / replace air filter elements

Check and tighten all foundation bolting

Check clutch & adjust if required

EQUIPMENT : Fire Water, Jockey & Foam Pumps

FREQUENCY: As per OEM recommendations

EQUIPMENT : Air Compressor

FREQUENCY: As per OEM recommendations and Daily

ACTIVITY:

Check the operator's daily records Investigate and correct reported cases of Abnormal noise or vibration of compressor

Abnormal noise or vibration of the prime mover (motor / engine) Low discharge air pressure

Leakage of air in air lines, valves and intercooler

CONTRACTOR

COMPANY

Malfunction of un-loader assembly

Reports related to the engine's starting system, fuel system etc. Any other occurrence needing attention of maintenance personnel.

250 hours or 6 months (whichever is earlier) Repeat daily checks

Replace air cleaner element

Check un-loader for proper functioning

Check proper tightness of all bolting

Check tension / wear of v-belts - replace if necessary

Carry out preventive maintenance (Periodic Inspection) of prime mover

Supply, provisioning of spares, consumables and execution of all types of maintenance jobs shall be entirely under the scope of the contractor.

Contractor shall be provided with schedules of all scheduled maintenances of Units / facilities / equipment stated above. The Contractor can put forward additional / modified list of maintenance schedules of the above based on OEM recommendations or other technical justifications etc. Such additional/modified list of maintenance schedules shall be reviewed by OIL and incorporated if found justified.

Contractor cannot and shall not claim the maintenance-schedules given by OIL to be improper at a later time. Likewise the Contractor cannot attribute any fault (malfunction / breakdown / under- performance etc) of any unit that may take place at a later time on the ground of OIL's improper maintenance-schedules.

Contractor shall be responsible for supplying, provisioning and inventorying of all replacements and/or capital nature units / parts / components etc. Replacements of these categories of items shall come under major repair and do not come under regular day-to-day routine maintenances (as per attached check lists / log sheets / maintenance schedule etc).

The Contractor shall have to take certification from OIL on the quality of items purchased by them prior to use / inventorisation as and when advised by OIL for the same.

The spares, consumables & replacements which are required for regular day to day processes, for safe, trouble-free & uninterrupted plant operations, regular &/or day-to- day routine maintenance-jobs (as per attached check lists / log sheets / maintenance schedule etc) and running repair-jobs are completely under the scope of the contractor.

The shortage or lack of the above items may lead to malfunction, underperformance & breakdown of any unit / facility / equipment of the plant which in turn may affect/ hamper the safe, trouble-free & uninterrupted operation of the plant. (eg. bearing, seals, gland packing and various regular spares of Jockey pumps, firefighting water & foam pumps, engines, Air compressors, submersible water pumps etc)

To eliminate any likelihood of such a situation, the following points are necessary:

The contractor shall make themselves ready with a comprehensive list of spares & consumables which are required to be maintained. Contractor shall compile the initial list from description of equipment / facilities in this document and from routine maintenance check lists / log sheets etc. Contractor can also visit Tank Farm for having better insight before taking over of Maintenance services of CTF, Duliajan.

An Indicative list of some such items is given below for facilitating the contractor in creating an initial inventory,

Looking at the usage of spares, OIL and/or the contractor - after consultation &

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consent from OIL - may include any additional spares, consumables & replacement- items at any point in time during the currency of the contract.

The inventory of such items shall be with contractor & Station – In - Charge of the installations. OIL will check the items to be replaced prior to its replacement on normal working hours &/or take-over the replaced item at an earliest working time after the replacement. The contractor shall keep daily record of consumption & stock position and report the same to OIL on a daily basis &/or as & when sought by OIL. OIL may however keep some of the critical spares &/or replacement-items under the custody of OIL.

The operator must maintain enough stock of each item in the inventory at all time in their base office at Duliajan. Projection of replenishment-requirement of these spares & consumables shall be the responsibility of the contractor.

Shortage /lack of any such item(s) shall be on contractor's account; penalty on contractor shall be imposed as per Penalty Clause 5.0

On some special circumstances / emergency situations for the purpose of trouble free, uninterrupted, safe and sound-industry-standard of plant operation, OIL may advice the contractor to procure any of the items (spares & consumables) which are not included in the indicative list of items provided. The contractor cannot and shall not decline to carry out the procurement process on behalf and on advice of OIL

On some occasions, OIL may ask the contractor for providing quotations from OEMs/ their franchisees / concerned vendors or any new vendors for items coming under their scope of supply. Contractor shall provide such quotation(s) or respond otherwise in writing within 7 days from OIL's written request for the same.

Apart from the above, the spares required for all mechanical items which are not covered in the indicative list of equipment and spares like piping repair, valves, flanges, bolts, nuts, washers and other pipe fittings, gaskets for smooth operation of the installation are also under the scope of the contractor.

OIL shall supply the POL items viz engine oil, gear oil, coolants and HSD for normal day to day routine maintenance jobs. Contractor shall have to provide all the other consumables for routine/scheduled maintenance jobs carried out at Daily/Weekly/monthly/as per OEM recommendation intervals. In addition, consumables for battery maintenances like distilled water, petroleum jelly, sand papers etc shall have to be provided by the contractor.

HSD is primarily required for running Fire Fighting engines during mock drills / exercises / testing etc. and the same is not in the scope of the contractor.

The contractor shall bear the cost on consumables required while carrying out day- to- day Maintenance jobs, which includes but not limited to materials like nuts & bolts of different sizes/gasket/asbestos ropes/jute/grease/bearing-lubricants/ fasteners etc.

MINIMUM INDICATIVE LIST OF SPARES TO BE MAINTAINED BY THE CONTRACTOR AT CTF, DULIAJAN:

(b) Fire Water Engine Spares:				
Sl No	PART NO	DESCRIPTION	Qty	UOM
1	605411880009	Lub oil filter v6/v8	30	NOS
2	1200240911/12	Filter element (micro + prime)	10	SET
3	106900000014/ 15	Air filter (inner + outer)	10	SET

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4	123200198518	Coolant additive 5 ltr pack	4	NO
(e) Air Dryer:				
Sl No	PART NO	DESCRIPTION	Qty	UOM
1	To match with the Air Dryer	Main Valve Spare Kit	2	NO
2	To match with the Air Dryer	Exhaust Valve Kit	1	NO
3	To match with the Air Dryer	Solenoid Valve	3	NO
4	To match with the Air Dryer	Pre-Filter Element	8	NO
5	To match with the Air Dryer	After- Filter Element	8	NO

Execution of Day-to-day Routine / Preventive / Break-down and Schedule maintenance

The Contractor shall do all types of maintenance jobs on any type of equipment / instrument / machine / unit / facility of the plant irrespective of scope of provisioning of the spares, consumables and other materials required thereon.

After initial communication and subsequent acknowledgement of the contractor in regards to maintenance, in case of malfunctioning or under-performing or breakdown of any units of the plant that takes place at any time during the currency of this maintenance contract, the contractor needs to immediately report to OIL.

In case the contractor's claims any fault as above to happen at a time just prior to OIL's inspection of the plant on that day, OIL shall investigate the performance history of the unit and all related reports / records / documents as already furnished till that day by the contractor. No new reports etc shall be acceptable to OIL on that day.

Contractor's claim as above shall be judged as per findings based on already submitted reports etc by contractor. Penalty shall be imposed on operator if fault is found to start earlier as per penalty clause no. 5.0.

All day-to-day routine maintenance / servicing jobs and schedule / preventive maintenance jobs shall be carried out regularly by the contractor at their cost. The contractor shall carry out all routine maintenance / servicing jobs and schedule / preventive maintenance jobs of the plant in the most regular, meticulous and diligent ways.

The contractor must be able to identify any problems, wear & tear in parts / components etc of units / equipment etc which if not replaced immediately is likely to cause trouble in the functioning. The contractor shall have to promptly replace such items and follow the clause in regards to items used / replaced. The contractor must eventually be able to avoid breakdown or malfunctioning of any equipment, facilities, and units of plant.

OIL may decide to go for additional maintenance jobs on any of the units/ equipment/facility of the Tank Farm over & above the scheduled ones. The contractor

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shall have to carry out the same and necessary spare for which shall be supplied by OIL from its inventory.

For all routine maintenances / servicing jobs, schedule / preventive maintenance jobs and also for breakdown maintenances / major repairs etc the contractor shall have to carry out all required workshop jobs like but not limited to jobs of various machining operations, milling, drilling, boring, reaming, grinding, lapping, press- fitting, shrink-fit assembly, expanded fit assembly, dismantling, assembling- disassembling etc. Further the operator shall have to be equipped with all required tools & tackles and other equipment. These include but not limited to items like wrenches, tongs, hammers, chisel, dies, all tools (non sparking) necessary for attending routine and breakdown maintenance of electrics, instrumentation and control system; temperature guns for machine-temperatures; hydraulic pullers of sufficient ratings, tripods & chain pulleys of required ratings, maintenance tool boxes, tool kit-sets, tube expander etc for all maintenance jobs.

All routine maintenance / servicing jobs and schedule / preventive maintenance jobs shall have to be properly documented / recorded and reported to OIL on real time basis. Absence of records & reporting to OIL, contractor's claim on doing the jobs will not hold good. Reports submitted later shall not be accepted.

The maintenance history of equipment's/units shall have to be maintained for each of the equipment/unit by the contractor and such maintenance history/records should be signed by the contractor and submitted to the IM of Tank Farm for future reference. Should the contractor fail to start any jobs as above in professional manner and with full man-power strength due to any reasons including but not limited to the reason of shortage / lack of spares, consumables and replacements falling under the scope of the contractor to do the purchasing process, the contractor shall be fully responsible and accountable. Penalty shall be imposed on operator if fault is found to start earlier as per penalty clause no. 5.0.

Any one or more of these penalties listed in clause no 5.0 shall be applicable which may lead to malfunctioning, underperforming or shutdown /breakdown of any unit, equipment, facility of each Tank Farm.

The contractor's performance or the lack of it in doing routine & schedule maintenance jobs shall be determined from reports / records / documents etc regarding all servicing & maintenance jobs and regarding all used spare parts & consumables used on a particular unit or equipment.

In case of breakdown or malfunctioning or under-performing of any equipment, the contractor needs to immediately report the same to OIL.

Simultaneously, the contractor must immediately start break-down maintenance jobs for restoring the unit at their cost and/or must replace any such break-down unit(s) within the shortest time avoiding interruption or under-performance of the plant.

Breakdown maintenance job as above shall be done with professional workmanship and continuously in all the shifts in all days without gap with skilled and adequate man-power strength. For that, the contractor shall arrange its maintenance gang.

Presence of Key personnel during the maintenance job will be required.

Man power of operator should be competent & sufficient for carrying out such jobs as per clause no. 4.0.

Requirement of OEM or their authorized dealers for Annual Maintenance Contracts (AMCs) / Warranties of their respective equipment shall be an issue of the contractor of their own. In case, the contractor decides for bringing OEM or their authorized

dealers for any job at Tank Farm the same needs to be endorsed by OIL on immediate basis. The responsibility for the maintenance service shall entirely rest with the contractor in case of any failure to do so. Failure of the same shall not be acceptable. OIL's endorsement will only be for allowing the contractor to employ the OEMs / authorized dealer on their behalf.

Contrarily, if the contractor decides to send any equipment / unit etc to OEM's workshop for maintenance, same needs to be endorsed by OIL. In such cases standby arrangement shall have to be provided by the contractor without extra charge.

Contractors failure to return the unit/equipment to OIL after such repair/rectification within 20 days shall attract Penalty as per clause no. 5.0. Such rectified unit/equipment shall have to be presented by the contractor to OIL for inspection before placement of the same.

If OIL finds the contractor's delay in starting required maintenance job detrimental to the plant or its operation, OIL shall carry out the job on its own but the financial implications in regards to cost of OIL's repair-activities will be recovered from monthly bills/Performance Bank Guarantee. This is deemed as per Penalty Clause number-5.0. OIL shall intimate the contractor prior to start of the jobs. Scheduled maintenance job for Fire water pumps and engines are not in the scope of the contractor.

Services of OEM:

The contractor is under the binding to inspect all the equipment/units by the representative of OEM not less than Service Manager or authorized Engineer twice in a year under normal circumstances. Certificates of Inspection shall have to be deposited to OIL after completion of each inspection immediately.

In case of any major breakdown where the contractor's crew are unable to rectify the defects within 48 hours of occurrence of such breakdown, the contractor is liable to provide the services of OEM to repair/rectify such defects.

Should the contractor feels the requirement of OEM's services it may do so at any point of time during the tenure of the contract. No additional charges for availing the above services/certification etc. shall be paid by the OIL to the contractor/OEM/authorized dealer. Any issues related to OEM/authorized dealer with the contractor shall not be the responsibility of OIL.

Failure to comply the above requirements as stated shall attract Penalty as per clause no. 5.0

FIRE& SAFETY SYSTEMS

HVLRM (High Volume Long Range Monitor)

OIL has introduced Manual as well as Remote Controlled High Volume Long Range Monitor (RCHVLRM) in Crude Oil Tank Farm for compliance of MB Lal Committee's recommendations as well as revised OISD-117-2012. The following two types of Portable / fixed type High Volume Long Range Monitors are used in Oil India Ltd. Manual Operated HVLRM

The monitors are equipped with non-aspirating type nozzles designed to throw high volume of water or foam as per the requirement. These monitors are erected on a structural platform at a desired height at strategic places where there is a potential hazard of fire.

The Manual High Volume Long Range Monitors are available in capacities of 1000 US

GPM (3800 LPM). The monitors have excellent horizontal and vertical throw making them effective against fires of any kind. HVLRM are ideally suited for fighting fires of storage tanks, columns, process towers, well fire etc. effectively & safely. The monitor can be rotated 340° horizontally and 120° vertically. The monitor produces various discharge patterns from jet, spray to semi-fog and fog. The conversion from a jet pattern to fog pattern takes place in less than 30 seconds and the fog curtain is as wide as 160°.

Remote Operated HVLRM

These Remote Controlled High Volume Long Range Monitors operate electrically & can be controlled from a safe distance by using a simple operating console. A Fire Fighter can be stationed in a control cabin that can be located away from the monitor. An Installation Personnel life is risk free, even while fighting a very large magnitude of fire. The monitors are equipped with non-aspirating type nozzles designed to throw water or foam as per the requirement from a safe distance of 200–300 meters.

The Remote Controlled Monitors (RCM) are installed in capacities ranging of 1000 US GPM (3800 LPM). The monitors have excellent horizontal and vertical throw making them effective against fires of any kind. HVLRM are ideally suited for fighting fires of storage tanks, process area, well fire etc. effectively & safely. The monitor can be rotated 340° horizontally and +90° & -15° vertically. The monitor produces various discharge patterns from jet, spray to semi-fog and fog. The conversion from a jet pattern to fog pattern takes place in less than 30 seconds and the fog curtain is as wide as 140°.

The foam is inducted through the balanced foam proportioners the central foam system at the installation.

The Manual & Remote Controlled Monitors have integrated safety through self-arresting gearing units that lock the monitor in all rotational movements thus preventing any chance of uncontrolled movements. Also to meet the safety standards the monitors have a provision to be manually operated in case of an electric failure. MEFG (Medium Expansion Foam Generator)

Medium Expansion Foam Generator having minimum foam expansion ratio of 1:40 is fitted with 75 mm dia. inlet flange (ANSI B 150 lbs rating). The flow rate MEFG is 600 LPM capacity. Glycerine filled S.S. Pressure Gauge (1-10kg/cm²) is fitted near the inlet flange. Foam Generator is able to produce foam at minimum 3.5 Kg/cm² to 5Kg/cm² pressure. Complete foam generator with inlet flange is made of stainless steel (SS-316). The barrel of MEFG is suitably designed to handle 5 Kg/cm² pressure. The barrel is Shield Metal Arc Welded SS-316 compatible electrodes. Minimum Stream Range of foam generator is 3 meters. All stainless steel metal parts of the foam generator are painted with two coats of polyurethane paints in yellow color.

Fire Fighting Equipment in Tank Farm

Tank Farm	Rim Seal	HVLM	MEFG	Emergency Escape Set	Fire Proximity Suit	Fire Water Header Size	Foam Header Size
Duliajan	3	Remote– 10 Manual– 6	16	2	1	16 inch	4 inch
Tank Farm	Rim Seal	Fire Water Pumps	Jockey Pump	Foam Pump	Fire Water Tank		Foam (ltrs)
Duliajan	3	616 m ³ /hr (6 nos)	130 m ³ /hr (2 nos)	25 m ³ /hr	7200 m ³ + 1930 m ³ (2 nos)		29260

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Spare Parts: The contractor shall assess the requirement and add spares to this list as required as per maintenance plan.

Maintenance & Testing Schedule

Sl. No.	Equipment/ System	Periodicity
1	Hydraulic Testing of Fire Extinguishers*	Once in Three Years
2	Foam Pouring System Testing	Six Monthly
3	HVLRMs, Hydrants	Quarterly
4	MEFG	Quarterly
5	Rim Seal Fire Protection System	Six Monthly
6	Balanced foam proportioner (for HVLRMs & MEFGs)	Quarterly
7	Water Spray System	Quarterly
8	Fire extinguishers	Quarterly

*List of Fire Extinguishers:

DCP type 9 Kg capacity: 24 Nos.
 DCP type 25 Kg capacity: 20 Nos.
 CO2 type 4.5 Kg capacity: 4 Nos.
 CO2 type 9 Kg capacity: 4 Nos.

FIRE ALARM SYSTEMS:

Fire Alarm and Detection system of CTF Duliajan comprises the followings:

COMBINATION DETECTOR: Auto-adjusting levels: 1 to 2%/ ft. and 2 to 4%/ft.
 Operating temperature- 0°C to 38°C (32°F to 100°F). Voltage range- 15-32 volts peak. Standby current(max avg.-300µA, LED Current-6.5mA @24VDC("ON"))
 Model: Notifier-FAPT-851(A), Acclimate® Plus TM Multi-sensor low profile intelligent Detector
 Size: 2"(5.3cm) high; base diameter. Shipping weight-5.2oz.(147g) Make: Honeywell; Quantity: 105

MCP (SAFE AREA): Dual-action (Two motions to activate the station), Operating voltage 24VDC, IP 24, Operating temp. 0-49 C.
 Size:89(w)x93(h)x60(d),weight-130g
 Model: NOTIFIER F /MCP/GLASS,Make: Honeywell Quantity: 08

MCP (HAZARDOUS AREA):Break glass, Cast aluminium alloy LM6,RAL 3000 RED,Zone-1&2,IIA & IIB,T6,IP 65,Earthing- 1 no inside & 2 nos outside brass/SS(M4/M6) screws with 2 nos. plain washers. Upto 3 nos 2.5/4 sq.mm clip on type terminals or open strip type 15ampsx 4 ways.1 No.10A, 415V,1 NO/NC contact element.
 Model: SAI/PBS/1050, Make: SAI Industries

HOOTER: Outdoor wall and ceiling products. Nominal Voltage-Regulated 12VDC/FWR

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or regulated 24VDC/FWR. Operating voltage range-8 V to 17.5V (12V nominal) or 16V to 33V (24V nominal).x

Model: NOTIFIER HRA, Make: Honeywell Quantity: 03

HOOTER ACKNOWLEDGE BOX: Wall mounting, Operating Voltage-230V/AC, Output freq-200Hz, Acknowledgement switch is provided to acknowledge the alarm.

Model: AL-140A-R; Make: POLMON,Quantity: 01

EXIT SIGN BOARD: The equipment shall operate with universal 2-wire AC input

voltage of 120 to 347 VAC at less than 2.5Watts and universal 2-wire DC input

voltage from 6 to 24VDC at less than 1.5Watts for single and double face signs.

Power consumption less than 2.5W in AC or DC remote mode.CSA 22.2 No.141-10

standard for pictogram exit signs. Suitable for wall, end or ceiling mount comes standard with the canopy for quick and easy installation.

Quantity: 07

FIRE ALARM JB:IP 55 to EN 60 529/1091 complies with NEMA 12.Enclosure-Sheet steel 1.25mm,Cover-Sheet steel-1.25mm,width-300mm,height-120mm,weight-2.7kg,Gland Plate(Top Bottom)-

Model: KL 1530.510; Make: RITTAL,Quantity: 02

SIREN: Electrically operated, audible range-5KM,Mounting-Vertical single mounting three phase, Power supply-400/440v,2800 rpm,50Hz,AC.Model:VST-500; Make:

KHERAJ

Quantity: 01

ADDRESSABLE MONITOR MODULE FOR FLP MCP: Powered directly by two-wire SLC Loop. No additional power required. Operating Voltage-15 to 32 VDC.Max. Current draw-5.0 mA. Operating temperature- 0°C to 49°C (32°F to 120°F).

Model: NOTIFIER NMM-100(A); Make: HONEYWELL,Quantity: 14

ADDRESSABLE CONTROL MODULE FOR HOOTER & SIREN: Internal circuitry and relay power directly by two-wire SLC loop. Normal operating Voltage 15 to 32VDC.External supply voltage regulated 24VDC supply; 2.2mA maximum using 80 VRMS supply. Temperature range- 0°C to 49°C (32°F to 120°F)

Model: NOTIFIER FCM-1(A); Make: HONEYWELL,Quantity: 04

CONTROL FIRE ALARM PANEL (6 LOOPS): 6 Loops, Input power-AMPS- 24E:240VAC, 50/60 Hz, 2.25A maximum, Output power 24V Power, Main 24VDC: Up to 5A, Aux 24 VDC: Up to 5A.Battery charger Range 7AH-200AH batteries. Intelligent Addressable Fire Alarm System/Fire Alarm Control Panel (FACP)

Model: NOTIFIER NFS2-3030; Make: HONEYWELL,Quantity: 01

FAULT ISOLATOR MODULE: Powered directly by two-wire SLC Loop.No additional power required. High noise (EMF/RFI) immunity. Operating Voltage-15 to 32 VDC (Peak).Current range-5.0 mA. Operating temperature- 0°C to 49°C (32°F to 120°F); 150g (5 oz)

Model: NOTIFIER ISO-X; Make: HONEYWELL,Quantity: 05

Failure to maintain the systems mentioned in clause no. 3.5.1, 3.5.2, 3.5.3, 3.5.4 &

3.5.5 in smooth running condition along with carrying out the scheduled maintenance, routine maintenance, preventive maintenance and breakdown maintenance of CTF Duliajan penalty will be imposed as per Penalty Clause no. 5.0.

CLEAN AGENT SYSTEM

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The clean agent system consists of following components:-

Control panel- 1 no.
Horn – 4 nos.
Strobes – 3 nos.
Co2 Cylinder- 6 nos.
Pilot Nitrogen Cylinder- 2 nos. Main
Nitrogen Cylinder:- 38 Pressure
relief Damper: - 3 nos. Miniature
Contact module: - 3 nos. Smoke
Detector:- 92 nos.

The integlex multi crest S508 is an intelligent addressable fire alarm system, with a simple and compact design concept. The S508 supports up to 508 addressable devices in styles 4, 6 and 7 of the signal line circuit, making it suitable for a range of small to medium sized applications.

The system features intelligent anti tamper protection. The panel front operation is protected against tampering by intelligent methods such as software passwords and a hardware key switch.

The S508 panel is equipped with address setting functionality, which allows users to set the address numbers of addressable devices connected to the panel, thus eliminating the need for a dedicated address setting device.

The S508 panel also has the ability to control fire suppression system. This functionality consists of auto and manual mode .Under the auto mode either multiple fire detector signals or a manual release signal activates the devices in the suppression zone via user configuration .The manual mode accepts only the manual release signals to activates the devices in the suppression zone.

Miniature Contact Modules (MCM):-

The miniature contact module is used to monitor the contact status of an initiating device that contains a normally open contact. The MCM can be programmed in the panel to supervise either a normally open or close contact on the FACP panel.

Specification of MCM:-

No.	Item	Specification
1.	Rated voltage range of SLC input power(S+,S-)	22.0 to 24.0 V
2.	Maximum SLC 24 VDC stand by current (S+,S-)	250μA
3.	Maximum SLC 24 VDC alarm current (S+, S-).	250μA
4.	IDC input circuit wiring style	Class B (Style B)
5.	End - of- line resistor for IDC	5.1kΩ,1.2W
6.	Maximum wiring resistance of IDC	100Ω
7.	Maximum wiring capacitance of IDC	1μF
8.	Operating temperature range	0°C to 49°C (32°F to 120°F)
9.	Operating humidity range	0 to 93% (non condensing)

(a) Single Contact Module (scm):

The single contact module is used to monitor the contact status of a device that contains normally open contact. It can be programmed in the panel to supervise either a normally open or normally closed contact on the fire alarm control panel. Specification of SCM:-

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No.	Item	Specification
1.	Rated voltage range of SLC input power(S+,S-)	22.0 to 24.0 V
2.	Maximum SLC 24 VDC stand by current (S+,S-)	250μA
3.	Maximum SLC 24 VDC alarm current (S+, S-).	1mA
4.	IDC input circuit wiring style	Class B (Style B)
5.	End - of- line resistor for IDC	5.1kΩ,1/2W
6.	Maximum wiring resistance of IDC	100Ω
7.	Maximum wiring capacitance of IDC	1μF
8.	Operating temperature range	0°C to 49°C (32°F to 120°F)
9.	Operating humidity range	0 to 93% (non condensing)

Dual Contact Module (dcm):

It is used to supervise multiple contact points with unique form a single device. It may be configured to monitor a normally open or normally closed contact.

Specification of DCM:-

No.	Item	Specification
1.	Rated voltage range of SLC input power(S+,S-)	22.0 to 24.0 V
2.	Maximum SLC 24 VDC stand by current (S+, S-)	250μA
3.	Maximum SLC 24 VDC alarm current (S+, S-).	1mA
4.	IDC input circuit wiring style	NFPA class A (Style D)
5.	IDC input circuit wiring style	NFPA class B (Style B)
6.	End - of- line resistor for IDC	5.1kΩ,1/2W
7.	Maximum wiring resistance of IDC	100Ω
8.	Maximum wiring capacitance of IDC	1μF
9.	Operating temperature range	0°C to 49°C (32°F to 120°F)
10.	Operating humidity range	0 to 93% (non condensing)

MCP Indoor call point Range MCP NO/NC Contact Model (Red Versions)

Product Benefits:

Unique 'Plug & Play' installation concept.
Total 'Flex ability' in the choice of operation element.
Anti-Tamper facility.
Enhanced aesthetics.
Fully approved to the latest standards.
Backward compatibility.
CPD Approved.

Installation efficiency, flexibility and full compliance with the latest standards are at the heart of the new MCP indoor call point range. These products utilize a special terminal block where all initial installation cabling is terminated. This terminal block is then simply connected to the back of MCP.

The MCP3A product version is supplied with one normally open and one normally closed contact. Selecting either the 'Normally Open' or 'Normally Closed' contact easily achieved by simply connecting the terminal block to the required connection in the back of the MCP3 Product. Single pole changeover switching can be achieved with the

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use of two terminal blocks.

Ordering information:

Model	Electrical Configuration	Mounting	Operating	Markings
MCP3A-R000SF-K013-01	N/O & N/C contacts 30VDC	Surface	Flexi	EN54-11

MCP Indoor call point Range MCP NO/NC Contact Model (Yellow Versions)

Model	Electrical Configuration	Colour	Mounting Element	Operating	Marking
MCP3A-R000SF-K013-01	N/O & N/C contacts 30VDC	Yellow	Surface	Flexi	Plain

System Sensor: Indoor selectable – Output Horns, Strobes and Horn Strobes for wall application.

The Spectra Alert Advance series offers the most versatile and easy to use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings.

Physical/Electrical Specifications

Standard Operating Temperature	32° to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe flash rate	1 flash per second
Nominal Voltage	Regulated 12DC/FWR or regulated 24 DC/FWR

Operating Voltage Range	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimension.	5.6'' L x 4.7'' W x 2.5'' D
Horn Dimension	5.6'' L x 4.7'' W x 1.3'' D
Wall-Mount Back Box Skirt Dimensions (BBS-2,BBSW-2)	5.9'' L x 5.0'' W x 2.2'' D
Wall-Mount Trim Ring Dimension (Sold as a 5 pack) (TR-HS,TRW-HS)	5.7'' L x 4.8'' W x 0.35'' D

The spares for Clean Agent system/Fire alarm system:

Sl No	Item details	Part no.	Specification	Quantity	UOM
1	MCP outdoor module(FMMM-101)			5	Nos
2	MCP indoor module(FMCP-GLASS-SL NO-A-00102426)			1	Nos
3	Smoke Detector(FAPT-851)			5	Nos
4	Monitored Output Module			3	NOS

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Failure to maintain the Clean Agent in smooth running condition along with carrying out the scheduled maintenance and breakdown maintenance penalty will be imposed as per Penalty Clause no. 5.0.

AIR CONDITIONER

SYSTEM Make : Bluestar

Model No. : DPAP1983R1 – I

Capacity : 16.56TR (3 compressor of 5.5TR capacity) Air Cooled

Total No. of units : 6 Nos.

Scope of Work:

The comprehensive Annual Maintenance Contract of the Air Conditioners shall inter- alias include:

Monthly checking and servicing the air conditioning plant/unit. The Service Report Card has to be handed over to the Installation Manager of the respective Tank Farm. Attending to the plant for repair/maintenance as and when called for.

Cleaning the evaporator and condenser.

Repair/overhaul of components of equipment at site/in our service installation, including replacement of worn out parts when found necessary.

Replenishing of refrigerant required as a result of a leak in the system arising out of wear and tear.

Lubricating the bearings of motor and fans, when found necessary.

Inspection of belts, adjusting of tension and replacement of worn out belts as and when required.

Repair of microprocessor controls and motors and starters. Checking

motors and starters, checking the operation of controls.

Painting of equipment and platform of the outdoor AC units during the contract period. Failure to maintain the air-conditioner system in smooth operational condition along with carrying out the scheduled maintenance and breakdown maintenance penalty will be imposed as per Penalty Clause no. 5.0.

Spares: The contractor shall assess the requirement and add spares to this list as required as per maintenance plan.

RIM SEAL FIRE PROTECTION SYSTEM

Scope shall include maintenance services for Rim Seal Fire Protection System of floating roof crude oil storage tanks including spares and consumables, tools/tackles as required for regular maintenance/preventative maintenance/breakdown maintenance under the said services during the entire period of the contract and its extension, if any.

Maintenance of Rim Seal Fire Protection shall be utilized for following 03 (three) number of tanks:

Sl. No.	Tank Location	No. of Tanks	Tank Diameter

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1	CTF, Duliajan	3	36.6 Meter
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PREAMBLE: This section establishes the scope and schedule for the work to be performed by the Contractor and describes references to the specifications, instructions, standards and other documents including specifications for any materials, tools or equipment which the Contractor shall satisfy or adhere to in the performance of the work.

INTRODUCTION: The overall purpose of the system is to detect and extinguish the Rim Seal fire over external floating roof tanks storing class “A” Petroleum Products at the incipient stage and simultaneously alert the personnel at the facility so that they can respond to the incident.

The installed Automatic Rim Seal Fire Detection and Extinguishing System specially designed for extremely fast detection and effective suppression of fires. The system is designed as per OISD guidelines.

The extinguishing media is AFFF (3% Low expansion) Premix foam solution, which has excellent film formation & cooling properties to prevent re-ignition after suppression. The system is mainly categorized in the following sub systems:

The linear heat detection system comprising of the detection evaluation unit & sensor tube which detects the fire and automatically actuates the extinguishing system Foam (UL Listed) based extinguishing system.

The power and signal hook up between the detector and extinguishing system on the roof, junction boxes outside the dykes & PLC based fire alarm annunciation panel and detection system Interfacing/Communication.

Major components details for the above sub systems are given below:

Sr. No.	Sub-System/ Component	Manufacturer/supplier
1.	LINEAR HEAT DETECTION SYSTEM	
a	Metallic Tube Linear Heat Detection Junction Box	Enclosure: M/s Flexpro Detector Unit: M/s Securiton
b	SS Sensor Tube	M/s Vimal Fire Control Pvt. Ltd.
c	RS 232 to RS 485 (2 wire) Interfacing Units	M/s. Abacus Electronics Pvt. Ltd.
2.	FOAM BASED EXTINGUISHING SYSTEM	
	Foam Module/Vessel	M/s. Praj Industries
	Foam Discharging Nozzles	M/s Vimal Fire Control Pvt. Ltd.
	Pressure Switch	M/s. Indfos Industries Pvt. Ltd.
	Level Switch	M/s. Chemtrol Samil Pvt. Ltd.
	Level Gauge	M/s. Pune Techtrol Pvt. Ltd.
	Flame Proof Solenoid Valve	M/s. Rotex Automation
	Auto Actuation Discharge Valve Pneumatic Actuator Ball Valve	M/s. EL-O-Matic (I) Pvt. Ltd.

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	Pressure Gauge	M/s. Baumer Technologies Pvt. Ltd.
	Safety Valve	M/s. Bliss Anand
3.	PLC BASED FIRE ALARM PANEL & INTERFACING/COMMUNICATION/HOOK UP WITH DETECTION/EXTENGUSHING SYSTEM ON TANK TOP	
a	Alarm Annunciator Window	M/s. EAPL
b	Programmable logic Controller with Graphic Console	M/s. Allen Bradley
c	Fiber to Ethernet Switch (ETAP)	M/s. Allen Bradley
d	RS 232-485- USB (2 wire) Interfacing Units	M/s. Abacus Electronics Pvt. Ltd.
e	Safety Barriers	M/s. Pepper + Fuchs (I) Pvt. Ltd.
f	Flame Proof Field Junction Boxes (Power, Signal Junction Box)	M/s. Flexpro Electricals Pvt. Ltd.
g	Redundant Uninterrupted Power Supply along with Battery Bank	M/s. Hi-Rel

SCOPE OF WORK

The contractor has to carry out Preventive/Periodic Maintenance and Breakdown maintenance as per recommendations and guidelines of the respective equipment OEMs or periodic maintenance schedule provided by OIL. Following are the minimum activities to be taken up during Preventive maintenance visit but not limited to: Basis Checks of the system -: To be done by contractor

Check and record the foam module pressure for all tanks. If pressure reading of foam module found out below 14.5 kg/cm² (threshold limit) then it is under the contractors scope of work to find out the cause through which pressure level dropped and take necessary remedial measures to rectify the same.

Ensure foam module pressure at a level of 14.5 Kg/cm² for all foam modules.

Perform foam discharge valve activation test.

Simulate the system through selector switch on Dyke JB's of individual tanks. Check the system by Closing by Manual valve with the help of MCP installed at Dyke JB's of individual tanks.

Ensure the alarm system in healthy operational condition during each visit.

Check communication between Control Room panels, Dyke Panel, ADW panel at Tank roof Control Room and ensure all communications free from any kind of defects.

Check/maintain the power in all JB's (Dyke, Roof, and Control Room). Generate Healthiness data of Rim seal System by Downloading the ADW data of individual tanks on Quarterly basis.

Perform leak test of individual foam modules of tanks checked by foam spray and rectifies the same (if any) in each visit and submit the consolidated report to OIL. Also submit consolidate report of checks and maintenance job in each visit.

Note: Laptop and allied arrangement shall brought by the service engineer during every visit for data downloading/data checking/Site acceptance test of system.

Instrumentation System (Quarterly by Contractor):

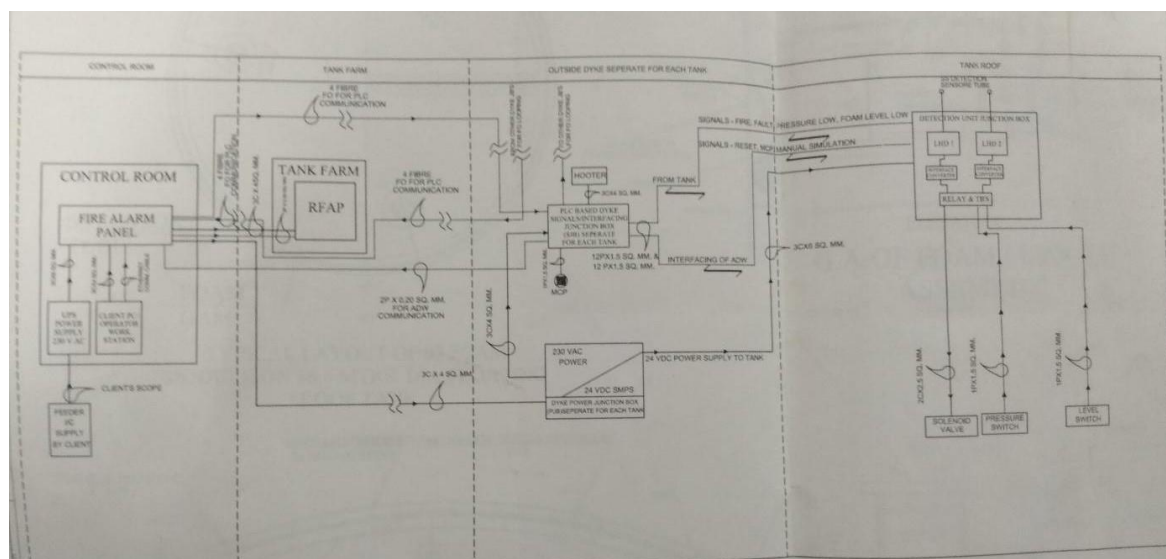
The Rim Seal Fire Protection System for Floating roof tank is a fully automatic fire

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detection cum extinguishing system. Specifically designed and manufactured for extremely fast detection and extinction of any type of Rim Seal fires.

The typical system hook up drawing of CTF, Duliajan is as follows:



The Tank wise Details of no. of LHD & DUJB are as follows:

Sl. No.	Location	Tank no.	No. of LHD	No. of DUJB
1.	Duliajan	TK-5	2	1
2.	Duliajan	TK-6	2	1
3.	Duliajan	TK-7	2	1

The basic components of the system are

Sr. No.	Sub-System/ Component	Manufacturer/supplier
1	Metallic Tube Linear Heat Detection Junction Box	Enclosure: M/s Flexpro Detector Unit: M/s Securiton
2	SS Sensor Tube	M/s Vimal Fire Control Pvt. Ltd.
3	RS 232 to RS 485 (2 wire) Interfacing Units	M/s. Abacus Electronics Pvt. Ltd.
4	Pressure Switch	M/s. Indfos Industries Pvt. Ltd.
5	Level Switch	M/s. Chemtrol Samil Pvt. Ltd.
6	Level Gauge	M/s. Pune Techtrol Pvt. Ltd.
7	Flame Proof Solenoid Valve	M/s. Rotex Automation
8	Auto Actuation Discharge Valve Pneumatic Actuator Ball Valve	M/s. EL-O-Matic (I) Pvt. Ltd.
9	Pressure Gauge	M/s. Baumer Technologies Pvt. Ltd.
10	Alarm Annunciator Window	M/s. EAPL

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11	Programmable logic Controller with Graphic Console	M/s. Allen Bradley
12	Fiber to Ethernet Switch (ETAP)	M/s. Allen Bradley
13	RS 232-485- USB (2 wire) Interfacing Units	M/s. Abacus Electronics Pvt. Ltd.
14	Safety Barriers	M/s. Pepper + Fuchs (I) Pvt. Ltd.
15	Flame Proof Field Junction Boxes (Power, Signal Junction Box)	M/s. Flexpro Electricals Pvt. Ltd.

The jobs to be carried out are as follows:

Carrying out calibration of pressure switch and actuation test for all the pressure switches.
Carrying out calibration of Level switch and actuation test for all the pressure switches.

Testing/maintenance / repair of solenoid valves. Testing/maintenance/repair of pneumatic actuator of rim seal system. Checking of alarms, events occurred since last visit and rectify the faults (as required) by downloading the ADW data of individual tanks from Dyke panel available at outside the dyke/ Roof Tank JBs/Control Room/ Annunciator

Window of Control Room. Generating healthiness Report of individual tanks and same to be submitted after each visit to OIL.

Checking all power supply units for proper voltage and current.

Functional checking of pneumatic operated valve, Solenoid Valve, Detector tube, pressure switch, MCP etc.

Inspection of all the components, wiring terminals etc. in the control panel and in the intermediate junction boxes and in the Status of field junction boxes and if any problem like looseness or corrosion in terminals or any other faults is identified, then rectify the same.

Checking of annunciation and hooter system and rectify the faults if any.

Checking of communication between Control Room panels, Dyke Panel and ADW panel at Tank roof Control Room.

Checking of loop wiring from tank Top Junction Box & Dyke Junction Box to Control Room.

Functional checking of Linear heat Detection System

Checking of events in history of Rim seal SCADA PC.

To take Backup of the PLC controller.

Note:

All check-ups and functionality test of complete system of the Rim Seal Fire Protection System is carried out without discharging of AFFF with the help of MCP

/Roof JBs/ Field JB outside the Dyke/ Control available at Dyke panel.

The above list of activities/checks are indicative. It is bidder's responsibility to maintain all the Instrument's and the Instrumentation control systems of Rim Seal Fire Protection System in healthy state throughout the Contract period.

Bidder should take sole responsibility to decommissioning & recommissioning of a part of the existing Instrumentation system installed in each tank and control room due to operational, safety and statutory compliance.,

Faults of any kind shall be rectified by repair / replacement of appropriate parts and functionality checks to be carried out after rectification of the fault. Before replacement of faulty parts/ change in system or replacement of any parts, report should be submitted and which should be acknowledge by OIL.

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Routine Service of Mechanical Systems (Quarterly by contractor)

Checking/ maintaining the pressure of all foam modules at 15Kg/cm² and re- pressurize the same with AFFF Foam and RO- Water in given format as given by OIL. (Nitrogen gas and allied arrangement/fitting to fill nitrogen in foam module shall be in scope of Contractor) Checking of conditions of mountings, clamps, shelters etc for damage, corrosion, and rectify the same.

Filling of AFFF foam in the foam modules and pressurization by N₂ gas in tanks in case of release of Foam due to actual Fire or fault. (AFFF foam shall be provided by OIL).

Adequate spares & non-sparking tools as required for system maintenance will be replaced by contractor and reimbursement of such spares shall be done by OIL. Note: OIL will reimburse the cost of those replaced spares which are consumed for system maintenance and also listed by contractor in their price bid. Cost of non- listed spares which are consumed for system maintenance shall be borne by contractor.

Mobilisation inspection and suitability report of spares is necessary for reimbursement and shall be carried by OILs competent personnel in the presence of Installation Manager and Contractors representative.

Cleaning of nozzles including flushing of foam lines, Replacement of old defective nozzles & fitting of new nozzles (if required) prior to approval from OILs competent authority but defective parts are to be submitted.

Leak test shall be performed with the help of foam spray in all fittings available at foam modules.

Half Yearly Checks of System -:

Contractor shall submit the original invoice on half yearly basis along with allocated job completion certificate duly certified by the Installation Manager/Engineer In- charge (OIL).

Calibration of Pressure gauge, Pressure switch, Solenoid valve, foam Nozzle cleaning of individual tanks to be done on half yearly basis.

Hydro testing of foam module by water/pneumatic pump at 25kg/cm² of 5 min once in a year report of same shall be submitted.

Checking of loop wiring from tank Top JB & Dyke JB to Control Room.

Functional checking of Linear heat Detection System (ADW).

Checking of events in history of Rim seal SCADA PC.

Thickness test of Foam Module in every six months and report of same shall be given with comparison chart with respect to previous reports.

Parameter report of ADW having details of TAU, Alarm max, Alarm diff., pre alarm max (90%), Pre-Alarm diff (90%) and self-test internal of debugging pump.

Checking of alarm indication on rim seal system SCADA PC and annunciator panel and screen shot of same may taken and is too attached in invoice.

Checking and cleaning of each and every nozzle of all tanks and record of same shall be submitted.

Testing and checking of Pressure switch, solenoid valve, pneumatic actuator, Pressure Gauge, N₂ data of each tanks, safety valve is to be in half yearly basis/OEM guidelines.

Checking of all tanks by closing the manual valve for 03 tanks and 02 tank with full discharge of foam in presence of OIL competent authority in each quarterly as well as half yearly visit. So, that each tank shall be check with full discharge once in a year. A details format may be prepared by contractor and filled in each quarterly as well as

half yearly visit for each tanks -:

Parameter of Power supply of each unit e. UPS, FAP, RFAP, PJB etc.

Status of Foam Modules accessories i.e. Manual ball valve, level switch, actuator valve, Solenoid valve, Pressure switch Pressure gauge with Snubber –isolation valve Manifold pipes, rubber grommets, Manifold pipes, Safety valve with isolation valve and allied equipments.

Test nozzles Sensor tube and fittings, DUJB, signal JBs, Power JBs, Cable glands, Pneumatic tubes, Main fire alarm panel.

Power/control/signal, cable from tank top to dyke panel and control room. Communication checking from tank top to dyke panel and control room.

Module pressure Data of each tanks Pressure switch data of each tanks

Checking of system of each tank by manual/Automatic data simulation by MCP/JBs/Control Room/Tank JBs /Solenoid /actuator actuation.

Failure to maintain the above jobs as mentioned in 3.8.1 & 3.8.2 will attract penalty as per clause no. 5.0.

To provide the comprehensive maintenance services described under clause no.3.8.2 for the Rim Seal Fire Protection System and their accessories installed and commissioned under MB Lal Recommendation project for CTF Duliajan, the contractor shall depute experienced competent instrumentation personnel.

In addition, the contractor shall also obtain a tie up agreement with the OEM for the Rim Seal System as mentioned above. The same tie-up agreement has to be submitted to the Company within 30 days from the date of mobilization.

For OEM services as required which shall be valid during the period of the contract and its extension if any to ensure trouble free maintenance as per terms of this contract.

The replacement of Battery Banks associated with Redundant Uninterrupted Power Supply for Rim Seal System shall not be under the scope however the periodic maintenance of these Batteries will fall under the scope of the contractor.

SPARE MANAGEMENT:

All constituent serviceable parts and components of the equipment / facilities of CTF Duliajan described above under various above clauses are the spares required for their maintenances (day-to-day routine, scheduled/preventive and break-down maintenances) as well as for keeping them functional so as to continue their safe, trouble free and uninterrupted operations.

Any equipment / part / component without which and/or without the replacement of which for any fault, a larger equipment / facility may become inoperative are also termed spares for this contract.

All the components of PLC /TFMS/CCTV systems and their associated subsystems including field instruments are considered as spares under this contract.

The total cost of spares for CTF Duliajan as quoted by the bidder/contractor shall be incorporated in the price Schedule of Quantities (SOQ) of this contract. It is presumed that the contractor's quoted price against cost of spares is all inclusive and this quoted price will be valid for the total duration of the contract.

Payment to the contractor against cost of spares shall be made on CATEGORY WISE MOBILIZATION OF SPARES i.e., CLEAN AGENT/ ELECTRICAL/INSTRUMENTATION/

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MECHANICAL/ RIM SEAL SPARES as detailed in SOQ. If OIL decides to buy additional spares from the listed spares in the SOQ then the said spares to be provided at the quoted price of the particular along with the bid within 15 days from the date of issuance of Letter for Purchase as a part of this comprehensive maintenance contract. No extra cost will be paid to the Contractor/OEM/Authorized Dealer by OIL.

The mandatory spares list mentioned elsewhere in this contract is a minimum as per OIL's assessment and is for contractor's reference only. The contractor must assess and add to his inventory of mandatory spares any other extra spares as required for the entire duration of this contract and can quote additionally along with the bid, which will be not the part of bid evaluation. Additional spares quoted by the Contractor will be purchased by OIL if OIL feels its requirement for a particular maintenance job. The contractor must handover the replaced items (Items/spares replaced by new ones as part of maintenance) to the respective Engineer In charge.

Procurement of spares and payment: The contractor shall procure spares preferably from OEM (Original Equipment Manufacturer).

In case additional spare not listed in the above mandatory spares list (refer clause no. 3.1 to 3.8) for preventative/breakdown maintenance beyond the contract value of cost of spares, the contractor shall procure at its own cost as a part of comprehensive maintenance contract from OEM/ authorized dealer as desired by OIL based on the maintenance requirement. The contractor shall obtain minimum three quotations from three different vendors as per OIL's prevailing procurement process and purchase from the vendor quoting the lowest price. The contractor shall be paid the invoiced amount including base price of the item, taxes & duties as applicable, transportation charges on FOR Duliajan basis.

Additionally the contractor shall be paid 5% on the base price of the invoiced items as handling & administrative charges.

Contractor shall obtain approval/permission/certificate from OIL indicating quantities make / brand / manufacturer's name etc. against each item before procurement of additional spares.

OIL shall have the right to inspect contractor's inventory of mandatory spares from time to time.

For procurement of items coming under petty expenses / local purchases / multi- brand etc., OIL's prevailing procurement process may not be required to be followed and operator can do off-the-shop purchases. But even in these cases also, approval/ permission / certification as stated above and specific permission for such type of off- the-shop procurement must be taken from OIL.

Contractor shall maintain an inventory of all mandatory spares at OIL's premises and stack the same in the Storage Godown of OIL Duliajan with proper housekeeping on daily basis. OIL also has a stock of some emergency spares maintained at CTF, Duliajan. The Contractor shall keep daily record of consumption & composite stock position and report the same to OIL on monthly basis &/or as & when asked by OIL. Projection of replenishment-requirement of these spares for initiation of procurement process shall be the responsibility of the contractor.

Contractor shall make available additional spares at CTF Duliajan within maximum 48 hours of reporting of such requirement by OIL
The contractor must handover unused spares if any to the respective Installation

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Managers of CTF Duliajan before closure/expiry of this contract.

Consumables: Necessary consumables required for maintenance of Instrumentation, Mechanical, Electrical, Information Technology, Clean Agent & Air Conditioner Equipments/Systems except HSD, Lubricants, Gear oil & Coolants shall be under contractor's scope.

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PERSONNEL:

All personnel to be deployed by the Contractor in different streams of work must have sound health, requisite qualifications, adequate experience in their respective fields as well as requisite competency as stipulated vide Indian Factory's Act & other byelaws, regulations & norms in force. The Contractor must warrant that all their employees shall perform the work correctly and efficiently and must ensure that such personnel observe all applicable statutory norms and safety requirement of OIL.

Contractor shall submit all documents, Bio-data / Qualification / Experience-details / Credential/ Competence Level / Eligibility Certificates / Police Verifications / IME reports etc. and other relevant data of any prospective deployment at the Tank Farm. Such personnel must not have any pending case against them in court of law / any pending police case or FIR against them. Any of the employees – officers or work staff – can work at respective Tank Farm only after approval of OIL for such employees. If not approved by OIL, Contractor cannot employ any of its employees at Tank Farm. In regards to selection process of the Contractor for their potential employees to be deployed at the Tank Farm, OIL shall not have any role or say.

The cost - if any - on providing all the above initial documents / reports etc. (including but not limited to Initial Medical Examinations, IME) to OIL at the beginning of deployment of each prospective employee shall be responsibility of the Contractor.

The initial documents to be provided to OIL shall be applicable for any new/ fresh employee to be deployed at CTF-Duliajan at any time during the currency of the contract.

Further, the Contractor shall be responsible for carrying out Periodic Medical Examination (PME) yearly/half yearly, as applicable, as per Assam Factory 's Act and providing OIL with PME reports of the employees on or before due date of next PME. Even after initial deployment if at a later stage OIL finds any personnel of the Contractor to be unsuitable / undesirable to OIL and communicates to the Contractor in writing, the Contractor shall remove such personnel immediately from working at the Tank Farm as mentioned. In this case, the Contractor - entirely on their expense - shall promptly replace such personnel with alternative personnel acceptable to OIL.

If Contractor wants to change any of their personnel deployed at the Tank Farm at any time, replacement for such employee(s) will be required in advance. New recruitment shall take over the responsibility after adequate training and familiarization prior to release of concerned persons. For new recruits, clauses 4.0 (i), (ii) & (iii) will be applicable.

Contractor shall be solely responsible throughout the period of the Contract for ensuring that all the Contractor's employees have requisite statutory trainings like but not limited to Fire Fighting Training as per Factory' Act/OISD-116/First Aid/Gas Testing etc.

The Contractor must maintain its training-matrix records of its all employees and keep it updated at all times.

Absence of any requisite statutory trainings including but not limited to the above for any employee shall render that employee un-employable at CTF-Duliajan and clause no 4.0 (iii) above will be applicable.

OIL may provide the above mentioned trainings to all employees of the Contractor free

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of cost. But such training can be imparted to Contractor's personnel at OIL only during periods when OIL conducts these trainings and subject to availability of seats.

The Field manager of CTF, Duliajan appointed by the Contractor shall be fluent in English and local Language (both writing and speaking).

Contractor shall engage Manpower required for the Operations and maintenance and determine their numbers in all concerned categories of employees as mentioned below, selection, hours of labour and compensation as per the provisions of Factorys act and other applicable laws, by-laws, regulations, Acts etc. Contractor can and shall obtain when appropriate, such occasional or part time service of experts, seconded employees for operational requirement or for having some operational advantage in Contractor's performance. But OIL's approval for such employee's deployment at the Tank Farm as mentioned needs to be taken beforehand.

Handing over of charge to the next reliever personnel immediately in case of its unavailability at site/ place. The plant shall be manned on 24X7 basis in 3 shift pattern and a general shift as per the general guideline about deployment of minimum number of employees under different category / shifts is given below:

S1	Category	Duty pattern	Minimum No of Employees in Shift (8hrs)	Reliever (Off-day duty/ Leave)	Total Manpower Requirement	Qualification/ Experience
01	Field Manager / Terminal Manager	General Shift – 24 hours available basis	1(G)	0	1	Graduate in Mechanical / Instrumentation / Chemical with 5 year experience (1 year's minim. Experience in Tank Farm)as mentioned below.
02	Control room Engineers	8 hours shift basis	1(M)+ 1(E)+ 1(N)	1	4	Minimum Diploma in Mechanical / Instrumentation / Electrical with 3 year experience in any process industry
03	Safety Officer	General Shift – 24 hours available basis	1(G)	0	1	Graduate in Mechanical Engg/Electrical/Instrumentation/ Electrical/Chemical/Eletronics Engg/Fire& Safety Engg/Fire Tech. /Graduate in Science + 1yr. Diploma in Industrial Safety Engg./Fire & Safety Engg from an Institute recognized by State/Central Govt. with 3yrs exp. in petroleum industry (handling similar

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						nature of job as mentioned above) as a Safety Officer
04	Shift Fireman	8 hours shift basis	2(M)+ 2(E)+ 2(N)	2	8	Minimum 10+2 pass in any stream from Govt. Recognized board institute/University with minimum 6 months “Basic Fire Fighting Course” from an Institute recognized by State/Central Govt. Details mentioned below.
05	Diploma Engineer (Instrumentation)	General Shift – 24 hours available basis	2(G)	0	2	Minimum Diploma in Instrumentation with 3 year experience in any process industry (handling similar nature of job as mentioned below.)
06	Instrumentation Technician	General Shift – 24 hours available basis	2(G)	0	2	Minimum Diploma with 3 years’ experience or ITI with 5 years’ experience in process instrumentation
07	Diploma Engineer (Electrical)	General Shift – 24 hours available basis	1(G)	0	1	Minimum Diploma in Electrical with 3 year experience in any process industry (handling similar nature of job as mentioned below.)
08	Electricians/ Technicians	General Shift – 24 hours available basis	2(G)	0	2	Minimum ITI certificate holder in electrical discipline having minimum 3 yrs. experience in the operation and maintenance of electrical equipment preferably in similar process industry.
09	Diploma Engineer (Mechanical)	General Shift – 24 hours available basis	1(G)	0	1	Minimum Diploma in Mechanical with 3 year experience in any process industry (handling similar nature of job as mentioned

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						below.)
10	Mechanical Technicians	8 hours shift basis	2(M)+ 2(E)+ 2(N)	2	8	ITI with 5 years' experience in maintenance of Diesel Engines/pumps/ pipe/ Valve fitting jobs in process industry/ Oil fields
11	Equipment/ Machine cleaner	General Shift – 24 hours available basis	4(G)	0	4	Matriculate and able to read and write English and communicate in local language.
12	House Keeping personnel	General shift	2(G)	0	2	Matriculate and able to read and write English and communicate in local language.
(Abbreviation: G-General Shift, E-Evening Shift, N-Night Shift) Total Manpower requirement : 36 nos						

Job requirement and qualification of the Key Personnel:

Field Manager/ Terminal Manager: The incumbent shall be an Engineering Graduate in Mechanical / Instrumentation/ Chemical with minimum five (5) years of experience in any process Industry along with 1 (one) year minimum experience in Tank Farm.

The person shall have overall responsibilities for safe & environmentally friendly operation, maintenance and administrative activities of the plants and establishment. The person shall be fully conversant with all the operation and maintenance of the Tank Farm related to but not limited to hazardous oil/gas processing, different pumps/ motors, electrical systems, various control loops of the processing, computer operation etc. Additionally, he must have adequate experience and managerial skill to lead a multidisciplinary team to carry out day to day jobs. The person shall also be conversant with Oil & Gas Safety Rules & Regulations and shall be in constant touch with Company representative. The Field Manager shall normally attend general shift duty but shall be available for 24 hours. He shall, with the help of his team, shall keep and maintain all statutory records of the plant.

Control Room Engineer: Minimum Diploma in Mechanical/2 Instrumentation / Electrical with 3 year experience in any process industry

Safety Officer: Safety officer should be qualified Engineer with 3yrs experience in petroleum industry handling similar nature of job as mentioned above as a Safety Officer, along with Graduate in Mechanical Engg/Electrical/ Instrumentation/Electrical/Chemical/Eletronics Engg/ Fire& Safety Engg/Fire Tech. /Graduate in Science + 1yr. Diploma in Industrial Safety Engg./Fire & Safety Engg from an Institute recognized by State/Central Govt. The person shall by oneself or with the league of Field Manager / other ENGINEERS must carry out all S&E related jobs on priority basis so that the contrator's all personnel are sensitized / aligned to carry out the jobs as primary "OPERATION & MAINTENANCE" jobs. This officer shall ensure that all routine S&E related jobs coming at definite frequencies must be known to all in the morning rake-up/ tool-box meeting. The person must be able to develop good file management / record keeping system.

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Shift Fireman: Shift fireman shall be 10+2 pass in any stream from Govt. Recognized board institute/University with minimum 6 months “Basic Fire Fighting Course” from an Institute recognized by State/Central Govt. Maintain minimum physical standard of height 150cm, weight-50kg, and chest-81cm with expansion 5cm.

Diploma-Engineers (Instrumentation): Diploma in Instrumentation with 03 years’ experience in any process industry handling similar nature of job as mentioned above.

Instrumentation Technicians: Diploma with 3 years’ experience or ITI with 5 years’ experience in process instrumentation.

They shall normally attend general shift duty but shall be available for 24 hours. Additionally, he must assist the Instrumentation Engineer in every possible way to run the plant smoothly.

Diploma Engineers (Electrical): Diploma in Electrical with 03 years’ experience in any process industry handling similar nature of job as mentioned above. They must possess valid Electrical Supervisor’s Certificate of Competency [minimum parts I, II, III, IV & VI and preferably Part VIII-Mining Installations] issued / vetted by State Licensing Board, Assam or equivalent authority. The Electrical Manager should be conversant with all statutory rules and regulations such as Central Electricity Authority Regulations (2010), Factorys Act, Factorys Rules, Indian Electricity Act and various directives, rules and regulations of Statutory bodies like OISD etc.

Electricians/Technicians (Electrical): Electricians / technicians (electrical) shall be deployed to maintain the electrics of the plant as per the direction of Electrical Engineer. The electricians / technician shall be minimum an ITI certificate holder in electrical discipline having minimum 3 yrs. experience in the operation and maintenance of electrical equipment preferably in similar process industry. The electricians / technician must possess valid Electrical Workman’s Permit [minimum parts: 1 (Wiring), 2 (Motor-Generator)] issued by State Licensing Board or equivalent authority. The electricians / technician shall have good hands-on skill and experience with all kinds of electrical equipment/ items and if required, shall be able to attend and rectify electrical reports/ problems independently. They shall be at available round the clock for attending any breakdown job apart from the regular maintenance of the installation. They shall normally attend general shift duty but shall be available for 24 hours. Additionally, he must assist the Electrical Engineer in every possible way to run the plant smoothly.

Mechanical Diploma Engineer: Diploma with 3 years’ experience in maintenance of pumps/ pipe/ Valve fitting jobs in process industry/ Oil fields
They shall normally attend general shift duty but shall be available for 24 hours. The person shall have to ensure trouble free operation of pumps/valves /pipe fittings etc.

Mechanical Technician: Diploma with 3 years’ experience or ITI with 5 years’ experience in maintenance of pumps/ pipe/ Valve fitting jobs in process industry/ Oil fields

Equipment/Machine cleaner: Matriculate and able to read and write English and communicate in local language.

Housekeeping Personnel:

Matriculate and able to read and write English and communicate in local language. Notes:

Contractor shall appoint a number of competent persons including officials during each of the working shift. Such appointed persons shall be competent to perform the duties assigned to them. The person deployed shall be accorded prior approval from OIL.

In the absence of candidates with requisite quantum of experience, OIL reserves the right to approve substitute candidates temporarily up to maximum period of three months.

Note to Clause No. 4.1: The contractor must assess the jobs requirement as per scope of this operation & maintenance contract and depute his team comprising adequate no of personnel accordingly without affecting planned/ unplanned jobs as per terms of this contract.

Contractor failure to provide maintenance services because of inadequacy of manpower shall attract penalty at the rate described under Penalty clause No. 5.0

MISCELLANEOUS

Normal duration of General shift is wef 7:00 am to 3:30 pm except Sunday as weekly off. Lunch Break will be for 30 minutes from 11: 30am to 12:00am. But all such key persons shall be available for 24 hours and all or anyone of them must be available at worksite as per requirement &/or as per advice of OIL in regards to any Operation & Maintenance work. If OIL decides that presence of all or anyone of them is necessary for safe, uninterrupted and full-capacity performances of all Operation & Maintenance jobs of the plant at any time beyond general shift on any days, person(s) must attend duty at site. Here decision of the necessity of the person's presence is solely OIL's and Contractor has to abide by that decision.

Contractor shall plan for all preventive maintenance jobs as per OIL General Shift from 7:00 am to 3:30 pm. But Contractor maintenance personnel shall be available for attending any breakdown maintenance round the clock 365 days in a year.

If OIL decides to take up any maintenance jobs beyond the scheduled maintenance jobs then requisite Contractor personnel shall attend those jobs. Here decision of the necessity of the person's presence is solely OIL's and Contractor has to abide by that decision.

The minimum number of persons - as in clause no 4.0 (viii) above - shall not decrease on any reason. Shift to shift change over needs to be maintained and any person working on preceding shift cannot leave the plant unless his corresponding reliever of the next shift relieves him of his duty. This is applicable to officers and workmen alike and applicable in case of Operation gang shift change-over between morning and night shifts. However in all cases, Contractor needs to plan their work personnel in such a way that no employee must work more than 2 shifts consecutively.

The Contractor will submit a list of engaged manpower and their deployment pattern including any change in the manpower/ deployment pattern during the tenure of contract period. The deployment pattern should meet the statutory requirement as per Factory's act and other Government Laws, statutory by-laws and Acts etc.

Contractor shall provide the Installation Manager, OIL with roster/ deployment pattern of all its employees on a monthly basis in the first three days of the month. Contractor shall furnish actual attendance of a day to the Installation Manager or

to his representative on the next working day. Failure to provide daily attendance sheet to OIL shall invite Penalty Clause number-05 as per clause no. 4.0 (i).

Contractor will intimate the Installation Manager, in writing, if any deviation particularly in the numbers of respective category of employees (Shift engineers, gang engineers, competent and/or skilled work personnel and workers) takes place in any shift on a day on the next working day. Contractor will highlight on their daily attendance given to the Factory Manager, if any employee had to work for 2 shifts consecutively as per the clause no 4.0 (viii) above.

The Contractor, before starting the work shall obtain a license from concerned authorities under the Contract Labour (Abolition and Regulation) Act 1970, and furnish a copy of the same to the Company. Contractor shall also be responsible for its validity and renewal and for complying with provisions of all applicable Act, Rules and Regulation in force at the locations of the site.

The Contractor shall be solely responsible throughout the period of the Contract for providing all requirements of their personnel, including but not limited to their insurance, housing, medical services, messing, transportation (both air and land transportation), vacation, salaries and all amenities, termination payment and taxes, if any, payable at no charge to the Company. The Contractor's crew personnel's shall arrange for their meal from their own, OIL shall not be responsible for providing any optional canteen facility.

Any shortage of man-power below the minimum number of employees as stated in clause no 4.0(viii) above due to any reason(s) under any clauses as above or any other reasons of the Contractor shall be penalized under Penalty Clause number-05 as per clause no. 4.0 (i). Further Contractor's failure to submit daily attendance of Contractor's employee to Installation Manager or to his representative on the next working day on daily basis shall also invite Penalty Clause number-05 as per clause no. 4.0 (i).

The Contractor shall be responsible for maintaining the minimum personnel as mentioned under clause no. 4.1 irrespective of their leave, sick, absence, retrenchment etc. The Contractor shall maintain his back up personnel with requisite qualification and experience as per this contract terms ready for replenishment of the operation & maintenance team for any of the above or any other unforeseen circumstances.

5.0 Imposition of Penalty: Penalty shall be imposed on the Contractor for failure of the Contractor to do any job as per detail scope of work stated on Clause no 3.0 & 4.0. Penalties are enlisted at serial number column as below:

Sl No.	Item	Reason of Penalty	Amount
1	Safety Gadgets	Non availability of all required safety gadgets, tools & equipment.	20 % of One day O&M Charge / week until its compliance

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2	Fire Fighting Maintenance/ system failure	<p>Contractor's Failure to keep entire Fire Fighting system in full operational condition during all time.</p> <p>Contractor's Failure to carry out all types of Fire Fighting Eqpts. maintenance as per Check list/ log- sheet/ maintenance schedules attached in the tender documents &/or to be provided by OIL.</p> <p>Contractor's Failure to maintain Ring main line pressure (min of 7 or 10 Kg/ cm² as per instruction of Installation Manager in writing).</p> <p>Any other failures to meet the HSE/statutory requirements as mentioned.</p>	20 % of One day O&M Charge / day
3	OWS Maintenance	Contractor's Failure to maintain OWS system as per specifications.	5 % of One day O&M Charge / day
4	Oil spillage/ Drains	Contractor's Failure to maintain cleanliness and oil-free state in the entire plant surface area and drains	5 % of One day O&M Charge / day
5	General Up-keepment	Contractor's failure to carry out daily general up-keepment jobs as per specifications.	5 % of One day O&M Charge / day
6	Shortage of man-power	<p>Contractor's failure to deploy minimum numbers of employees /shift on each day.</p> <p>Contractor's failure to submit daily attendance of their employees deployed.</p>	Equals to 1.4% of one day O&M charge/day X no(s) of manpower shortage for each day /shift of month
7	Mechanical maintenance	Contractor's Failure to carry out all types of Mechanical maintenance as per Check list/ log-sheet/ maintenance schedules attached in the tender documents &/or to be provided by OIL.	5 % of One day O&M Charge / day
8	Electrical Maintenance	Contractor's Failure to carry out all types of Electrical maintenance as per Check list/ log-sheet/ maintenance schedules attached in the tender documents &/or to be provided by OIL.	5 % of One day O&M Charge / day
9	Instrumentation Maintenance	Contractor's Failure to carry out all types of Inst maintenance as per Check lists / log-sheets / maintenance schedules attached in tender documents &/or to be provided by OIL.	5 % of One day O&M Charge / day

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10	Shortage of spare parts / consumable	Contractor's failure to manage / plan for procuring on behalf of OIL to maintain min inventory as given by OIL. Contractor's failure to supply consumable under contractor's scope of O&M	Penalty equal to handling charge/price of the item Subsequent loss to OIL due to shortage /lack of items Price of item and loss to OIL to be determined by OIL Technical committee
11	Improper b/down maintenance	i. Contractor's failure to do immediate & continuous b/down maintenance jobs. ii. Contractor's failure to engage adequate numbers of skilled /competent persons for break down maintenance jobs.	Equals to 10% of one day O&M charge/day X no(s) of unit shutdown, until its compliance
12	Loss to OIL on a/c of poor maintenance	OIL may incur loss due to under-performing of the plant resulting from Contractor's lack of routine &/or break down maintenance jobs.	Penalty on actual loss to OIL to be determined by OIL Technical committee
13	Recovery on a/c OIL doing by self	OIL cannot wait for the Contractor's delayed start of maintenances and may do jobs on its own.	Penalty on actual loss to OIL to be determined by OIL Technical committee
14	New item maintenance	Contractor's failure to do Maintenance on minor additional new equipment/unit etc requiring no extra man power burden.	Penalty on actual loss to OIL to be determined by OIL Technical committee
15	Failure of OEM's/Authorized Dealer's Service	Contractor's failure to avail services of OEM/ Authorized dealer whenever required for smooth running of PLANT.	Equals to 10% of one day O&M charge/day X no(s) of unit breakdown, until its compliance

GENERAL :

- a) Special Conditions of Contract (SCC) shall be read in conjunction with the General Conditions of Contract (GCC), Specifications of Work, Drawings and other documents forming part of this contract wherever the context so requires.
- b) Notwithstanding the sub-division of the documents into these separate parts and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the contract in so far as it may be practicable to do so.
- c) Where any portion of the GCC is repugnant to or at variance with any provision of the SCC, then the provision of the SCC shall be deemed to override the provisions of the GCC and shall, to the extent of such repugnance or variations, prevail.
- d) Wherever it is mentioned in the specifications that the contractor shall perform certain works or provide certain facilities, it is to be understood that in addition to the items supplied by the company, the contractor shall do so at his own cost, being deemed to be part of the relevant item in the schedule of rates (SOR) whether specifically stated or not.

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e) The design and workmanship of all materials to be used / supplied by the bidder shall satisfy the relevant Standards & Codes, besides the specifications & stipulations contained herein the contract specifications. The bidder shall absorb all cost because of the additional involvements thereon.

