

KOLKATA PORT TRUST
HALDIA DOCK COMPLEX
SHORT E-TENDER NOTICE

E-Tender No.: KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311 dated: 1st November, 2018

Online e-tenders are invited for the work of "Design, manufacture, fabrication, supply, erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal -II (OT-II) under two cover systems."

Date of Pre-Bid meeting: **14.11.2018**, 11:00 Hrs. onwards.

Closing date & time of online submission of e-tender: **11.12.2018**, up to 15:00 Hrs.

Opening date and time of Techno commercial Bid: 11.12.2018 at 15.30 Hrs

For details of tender and any corrigendum / addendum, please visit MSTC's e-portal
<http://www.mstcecommerce.com/eprochome/kopt.>

<http://www.kolkataporttrust.gov.in>

<http://eprocure.gov.in/epublish/app>


General Manager (Engineering)
Haldia Dock Complex
Kolkata Port Trust

**HALDIA DOCK COMPLEX
KOLKATA PORT TRUST**



ENGINEERING DEPARTMENT INVITE E-TENDER

[Tender No. SDM(P&E)/T/19/2018-2019]

FOR

Tender Document for Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II) under two cover systems.

NOVEMBER - 2018

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General Manager (Engineering)
Haldia Dock Complex
Kolkata Port Trust

KOLKATA PORT TRUST
HALDIA DOCK COMPLEX
NOTICE INVITING E-TENDER
(Tender No. SDM(P&E)T/19/2018-2019)

E-Tender No.: KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311 dated: 1st November, 2018

E-Tenders, under **single stage two part system** [Part I: **Pre-qualification & Techno-commercial Bid** and Part II: **Price Bid**] are invited on behalf of Haldia Dock Complex (HDC), Kolkata Port Trust (KoPT), from the intending bidders, fulfilling the “**Minimum Eligibility Criteria (MEC)**” and complying with the “**Test of responsiveness**” for the work of “**Design, manufacture, fabrication, supply, erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal -II (OT-II) under two cover systems.**”

2.1 MINIMUM ELIGIBILITY CRITERIA (MEC):

2.1.1 The average annual financial turnover of the bidder, during the last three (3) years, ending 31st March, 2018, must be at least ₹ 4,08,33,333.00. Auditor's Report of the bidding firm, certified by Chartered Accountant (CA), for the years 2015-16, 2016-17 and 2017-18, including relevant Audited Balance Sheets and Profit & Loss Accounts, should be made available.

Note: The bidder upload the scanned copies of Annual Financial Turnover Statement (certified by CA) for the years 2015-16, 2016-17 and 2017-18 along with Balance Sheets and Profit & Loss Accounts.

2.1.2 The bidder must have experience of having successfully completed “Similar Work” [defined below] during last seven (7) years, ending last day of month previous to the one in which tenders are invited, and the experience must be either of the following :-

a) Three similar completed works of contract value not less than ₹ 4, 90, 00,000.00 each.

Or

b) Two similar completed works of contract value not less than ₹ 6, 12, 50,000.00 each.

Or

c) One similar completed work of contract value not less than ₹ 9, 80, 00,000.00 each

The term “*similar work*” means -

“Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at Port Sectors / Refineries / Industry”.

Note: The bidder will have to upload the scanned copies of work order(s) for similar works, successful completion certificates (with performance) from clients indicating the date of completion, value of work done, etc..

2.2 TEST OF RESPONSIVENESS:

The bidder should be considered responsive, only if scanned copy of the required document shall be uploaded along with bids;

- a) The bidder will have to upload the scanned copies of work order(s) for similar works, successful completion certificates (with performance) from clients indicating the date of completion, value of work done, etc.
- b) The bidder upload the scanned copies of Annual Financial Turnover Statement (certified by CA) for the years 2015-16, 2016-17 and 2017-18 along with Balance Sheets and Profit & Loss Accounts.
- c) Goods and Services Tax (GST) Registration Certificate, issued by Government of India.
- d) Valid **Profession Tax Clearance Certificate (PTCC)** or Up-to-date **Profession Tax payment challan**, if applicable. If this is not applicable, the bidder must submit [upload] a declaration in this regard.
- e) Certificate for allotment of **Employees' Provident Fund (EPF) Code No. [Latest challan]** is to be submitted (uploaded)], if applicable. If this is not applicable, the Bidder should submit [upload] a declaration (in the form of Affidavit), in this regard.
- f) Registration certificate of **Employees' State Insurance (ESI)** authority, if applicable.

If this is not applicable, necessary document(s) [to establish Non-applicability], along with **affidavit, affirmed before a first-class Judicial Magistrate** to that effect, are to be submitted [uploaded]. Moreover, such bidder(s) shall have to submit a declaration, confirming that they will obtain registration certificate of ESI authority, if required, and they will indemnify **Kolkata Port Trust** against all damages & accident occurring to their labourer (including that of sub-contractor's labourers), in connection with the instant contract, in case they become a Successful Bidder.

- g) PAN Card, issued by Income Tax Department, Government of India.
- h) **Certificate of MSME / Micro & Small Enterprises (MSEs) / DIC / SSI / National Small Industries Corporation (NSIC)** to get benefit in this regard.
- i) The bidder shall upload the scanned copy of **Power of Attorney**.

- 2.3 The bidders are required to submit bid as per the instructions of the instant bidding documents (including Notice Inviting e-Tender). Bid will be considered rejected if any of the essential documents is not submitted by the bidder. Essential documents means papers related to "Minimum Eligibility Criteria (MEC)", "Test of responsiveness", including Bid Document fee, Earnest Money Deposit and Power of Attorney.

2.4 AVAILABILITY OF THE BIDDING DOCUMENTS:

The bidding documents (in full) would be available in the following websites:-

- <http://www.mstcecommerce.com/eprohome/kopt> of MSTC Ltd.
- <http://eprocure.gov.in/epublish/app> of Central Public Procurement Portal.
- <http://www.kolkataporttrust.gov.in> of Kolkata Port Trust.

Corrigenda, Addenda, Queries & Clarifications, if any, would also be available in the aforesaid websites.

2.5 PARTICIPATING IN THE BIDDING PROCESS:

The bidders will have to participate in the *electronic bidding process through the website of MSTC Ltd. (<http://www.mstcecommerce.com/>) only.*

General Manager (Engineering)
Haldia Dock Complex
Kolkata Port Trust

SCHEDULE OF TENDER (SOT)

(Tender No. SDM(P&E)T/19/2018-2019)

E-Tender No.: KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311 dated: 1st November, 2018

3.1.	Name of work	::	Design, manufacture, fabrication, supply, erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal -II (OT-II) under two cover systems at HDC,KoPT
3.2.	Tender Inviting Authority	::	General Manager (Engg.) Haldia Dock Complex ; Kolkata Port Trust.
3.3.	Mode of Tender	::	e-Procurement System Online (Part I: <i>Pre-qualification & Techno-commercial Bid</i> and Part II: <i>Price Bid</i>) through http://www.mstcecommerce.com/eprochome/kopt . of MSTC Ltd. <i>No physical tender is acceptable by Haldia Dock Complex, Kolkata Port Trust.</i>
3.4.	Estimated Cost	::	₹ 12,25,00,000.00 (excluding GST).
3.5.	i) Transaction Fee	::	The intending bidders must deposit ₹ 17700.00 (Indian Rupees Seventeen thousand seven hundred) only [Including GST @18%] as “Transaction Fee” (non-refundable), in favour of MSTC LIMITED by NEFT or Online Payment. The intending bidders will be activated for bid submission only after receipt of aforesaid “Transaction Fee” by MSTC LIMITED. The intending bidders are advised to remit the “Transaction Fee” well in advance before the closing time of the event, so as to give themselves sufficient time to submit the bid.
	ii) Bid Document Fee (Cost of bidding documents)	::	The intending bidders must deposit ₹ 2,950.00 (Indian Rupees: Two thousand nine hundred and fifty) only [including GST @ 18%], as Bid Document Fee (non-refundable), to Haldia Dock Complex, along with their offer. In case the said Bid Document Fee is not deposited by the bidder, the respective bid will be summarily rejected, treating the same as non-responsive.
	iii) Earnest Money Deposit (EMD)	::	The intending bidders must deposit Rs. 24,50,000.00 (Indian Rupees: Twenty four lakh fifty thousand) only, as Earnest Money, to Haldia Dock Complex, along with their offer. In case the said Earnest Money is not deposited by the bidder, the respective bid will be summarily rejected, treating the same as non-responsive.

			<p>NOTE ::</p> <p>(i) For exemption of Bid Document Fee and EMD to upload the scanned copy of the certificate from MSME / Micro & Small Enterprises (MSEs) / DIC / SSI / National Small Industries Corporation (NSIC) or any empowered Central / State Govt. authority is required in electronic format.</p> <p>(ii) The bidders, who are not registered with MSTC, are advised to get themselves registered with MSTC, at least 72 (seventy-two) hours prior to making payment of Bid Document Fee and Earnest Money.</p> <p>(iii) The bidders are advised to deposit Bid Document Fee and EMD using the <u>Axis Bank Payment Gateway only</u>. No other method of payment of Bid Document Fee shall be accepted.</p>
3.6.	Completion Period	::	24 months.
3.7.	Bid Validity	::	120 days.
3.8.	Security Deposit	::	10 % of the Contract Value excluding GST in the form of Bank Guarantee.
3.9.	Guarantee Period	::	24 months for complete projects.
3.10.	Date, time and venue of Pre-Bid Meeting (off-line).	::	<p>14.11.2018 at 11:00 Hrs (IST). Office of Sr. Dy. Manager (P&E); Chiranjibpur; P.O: Haldia; Dist.: Purba Medinipur; PIN: 721 604; West Bengal; India.</p>
3.11.	i) Starting date & time of submission of e-Tender at http://www.mstcecommerce.com/eprochome/kopt	::	04.12.2018 from 11.00 hr.
	ii) Closing date & time of submission of e-Tender at http://www.mstcecommerce.com/eprochome/kopt	::	11.12.2018, up to 15 00 Hrs. (IST).
	iii) Date & time of opening of Part-I (Techno-commercial Bid)	::	11.12.2018, 15 30 Hrs. (IST) onwards.
	iv) Date & time of opening of Part-II (Price Bid)	::	Shall be informed separately.
3.12.	Address of the Employer	::	<p>Kolkata Port Trust (KoPT). 15 Strand Road, Kolkata – 700 001, West Bengal, India.</p>

3.13.	Address of Engineer	::	General Manager (Engineering) Haldia Dock Complex ; Kolkata Port Trust. <u>Address:</u> Engineering Department Jawahar Tower Complex ; P.O.: Haldia Township; Dist.: Purba Medinipur ; PIN: –721607 West Bengal, India. Telephone no. : + 91-3224-263255 E. mail : aganesan.hdc@nic.in
3.14.	Address of the Engineer's representative	::	Shri S. Chakraborty, Sr. Dy. Manager (P&E), Haldia Dock Complex, Operational Administrative Building (1 st floor), Chiranjibpur; P.O: Haldia; Dist.: Purba Medinipur; PIN: 721 604; West Bengal; India. Phone no. + 91 9434735407 Landline: + 91-3224-252543 E. mail : schakraborty.hdc@nic.in

General Manager (Engineering)
Haldia Dock Complex
Kolkata Port Trust

SECTION - IV

INSTRUCTIONS FOR ONLINE BID SUBMISSION

4.1 Introduction:

- 4.1.1** This is an e-procurement event of **HALDIA DOCK COMPLEX**. The e-procurement service provider is **MSTC Ltd.**, 225C, A.J.C. Bose Road, Kolkata-700 020.
- 4.1.2** The intending bidders are requested to go through the “**Instructions To Bidders (ITB)**” and contents of this bidding document, including all terms & conditions and Technical Specifications before submitting online tender. Bidders who do not comply with the requirements / conditions, with documentary proof (wherever required), will not qualify in the tender, for opening of Price Bid.
- 4.1.3** **SPECIAL NOTE:**
THE PRE-QUALIFICATION & TECHNO-COMMERCIAL BID AND PRICE BID SHALL HAVE TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/kopt only.
- 4.1.4** Possession of valid Digital Signature Certificate (DSC) [**Class III Signing Type**] and Registration of the intending bidder with **MSTC Limited** on the e-Procurement / e-Tender Portal of MSTC are pre-requisites for the instant e-Tendering.
- 4.1.5** The Digital Signature Certificate (DSC) [Class III Signing Type], issued by nCode/eMudra or any Certifying Authority (CA) recognized by Controller of Certifying Authorities (CCA), India, should be registered. Only the DSC that is registered should be used by the bidder and the bidder should ensure safety of the same.
- 4.1.6** The intending bidders are requested to read the vendor guide and see the video in the webpage www.mstcecommerce.com/eprochome to familiarize themselves with the system before bidding.
- 4.1.7** The online tender should be submitted strictly as per the terms and conditions and procedures laid down in the website www.mstcecommerce.com/eprochome/ of **MSTC Limited**.
- 4.1.8** All entries in the tender should be entered in online Technical & Commercial formats, without any ambiguity.
- 4.1.9** The e-Tender platform shall remain open from the pre-announced date & time and for as much duration as mentioned in the Schedule of Tender (SOT).
- 4.1.10** E-tender cannot be accessed after the closing date and time of e-Tender, mentioned in the Schedule of Tender (SoT) of the instant bidding documents.

4.2 Process of e-tender :

4.2.1 Registration:

The process involves **vendor's registration with MSTC e-procurement portal** which is **free of cost**. Only after registration, the vendor(s) can submit his / their bids electronically. Electronic bidding for submission of Techno-Commercial Bid

as well as Price Bid will be done over the internet. The **Vendor should possess Class III Signing type Digital Certificate**. Vendors are to make their own arrangement for bidding from a Personal Computer / Laptop, connected with Internet. **MSTC** is not responsible for making such arrangement. (*Bids will not be recorded without Digital Signature*).

4.2.2 Steps for Registration:

- i) Vendors are required to register themselves online with www.mstcecommerce.com → e-Procurement → PSUs / Govt. Departments → Kolkata Port Trust → Register as Vendor → (Filling up required details and creating own user id & password) → Submit.
- ii) Vendors will receive system generated mail(s), confirming their registration, in their e-mail ID(s), which has been provided during filling up the registration form.

4.2.3 The intending bidders are requested to submit their bids, keeping sufficient time in hand.

4.2.4 In case of any clarification regarding online submission of bids, the intending bidders are requested to contact HDC / MSTC, well in advance, keeping sufficient time in hand.

Contact person (Haldia Dock Complex):

- (i) Mr. S. Chakrabarty
Sr. Dy. Manager (P&E.) ,HDC
Phone no. + 91 9434735407
Landline: + 91-3224-252543
email - schakraborty.hdc@nic.in
- (ii) Shri A.K. Maiti
Designation: Deputy Manager (P&E)
Mobile No.: + 91 94340 31336
Landline: + 91-3224-252543
E-mail : akmaity.hdc@nic.in

Contact persons (MSTC Ltd.):

- (i) Mr. V. K. Jaiswal
Regional Manager (ERO)
Mobile No: +919903042449
Email- vikash@mstcindia.co.in
- (ii) Mr. P. Biswas
Asstt.Manager (ERO)
Mobile No.- +919903248755
Email: pbiswas@mstcindia.co.in
Landline: +91 – 33 – 2290 1004
- (iii) Mr. M. H. Jain
Asstt.Manager (ERO)
Mobile No: +919721277969
Email- mhjain@mstcindia.co.in

4.2.5 System requirements and other requirements:

- i) Operating System: Windows 7 or above.
- ii) Internet Browser: IE-7 or above.
- iii) Class-III Signing Type Digital Certificate.
- iv) Latest update JRE 8 (x86 Offline) Software to be downloaded and

installed in the system.

- v) To disable “Protected Mode” for DSC (Digital Signature Certificate) to appear in the signer box, the following setting may be applied:
Tools => Internet Options => Security => Disable Protected Mode (if enabled), i.e., remove the tick from the tick box mentioning “Enable Protected Mode”.
- vi) Other settings:
Tools => Internet Options => General => Click on Settings under “Browsing History/Delete Browsing History” => Temporary Internet Files => Activate “Every time I visit the webpage”.
- vii) To enable ALL Active X controls and disable ‘use pop up blocker’ under Tools → Internet Options → Custom Level (Please run IE settings from the webpage www.mstcecommerce.com once).

4.2.6 Bidding in e-tender:

- i) The intending bidders need to submit necessary Transaction Fee, to become eligible to bid online in the e-Tender. Transaction Fee is non-refundable.

Bid Document Fee is non-refundable. Earnest Money Deposit will be refunded to the unsuccessful bidders, without any interest, within 2 (two) months from the date of opening of Price Bids or on finalization/acceptance of tender, whichever is earlier. Earnest Money Deposit of the successful bidder will be refunded, without any interest, after submission of Security Deposit by them.
- ii) The bidders must upload all the documents required as per the instant bidding documents (including Notice Inviting e-Tender). Any other document uploaded, which is not required as per the instant bidding documents (including Notice Inviting e-Tender), shall not be considered.
- iii) **Certificate of MSME / Micro & Small Enterprises (MSEs) / DIC / SSI / National Small Industries Corporation (NSIC)** shall have to be submitted (uploaded) to get benefit.
- iv) Unit of Measure (UOM) is indicated in the e-Tender platform. Rate to be quoted should be in Indian Rupees, as per UOM indicated in the e-Tender platform or in the bidding documents.
- v) **Steps for submitting Pre-Qualification & Techno-Commercial Bid and Price Bid :**

The intending bidder(s), who have submitted the required Transaction Fee, can only submit their Pre-qualification & Techno-commercial Bid and Price Bid, through Internet, in MSTC website. The steps are given hereunder:
 - a) www.mstcecommerce.com → e-Procurement → PSUs/Govt. Departments → Kolkata Port Trust → Login → My Menu → Auction Floor Manager → Live Event → Selection of the Live Event → Techno-commercial Bid
 - b) The bidder should allow running JAVA application. This exercise has to be done immediately after opening of Bid Floor. Then the necessary steps, as would appear, would have to be followed. If this

application is not run, then the bidder will not be able to save/submit their bid.

- c) After filling the Techno-commercial Bid, the bidder should click on “Save” for recording their Techno-commercial Bid. Once the same is done, the Price Bid link becomes active and the same has to be filled up and then the bidder should click on “Save” to record their Price Bid. Then once both the Techno-commercial Bid and Price Bid have been saved, the bidder can click on the “Final submission” button to register their bid.
- vi) The bidders should quote their offered prices appropriately, only in the aforesaid Price Bid link. Price indicated anywhere else, in any other form or manner, will not be considered for evaluation of Price Bid.
- vii) The Techno-commercial Bid and Price Bid cannot be modified/revised, once the “Final submission” button has been clicked by the bidder.
- viii) After submitting online bid, the bidder cannot access the bid submitted by him/them, once the “Final submission” button has been clicked by the bidder.

4.2.7 Special Note towards Transaction Fee:

The intending bidder shall pay the Transaction Fee using “Transaction Fee Payment” link under “My Menu” in the vendor login. The intending bidder has to select the particular tender from the event dropdown box. The intending bidder shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the intending bidder shall generate a challan by filling up a form. The intending bidder shall remit the Transaction Fee amount as per the details printed on the challan, without making change in the same. On selecting Online Payment, the intending bidder shall have the provision of making payment using its Credit Card/Debit Card/Net Banking. Once the payment gets credited to MSTC’s designated Bank account, the Transaction Fee shall be auto authorized and the intending bidder shall be receiving a system generated mail.

Transaction Fee is non-refundable.

An intending bidder will not have access to online e-Tender without making payment towards Transaction Fee. In other words, an intending bidder will be activated for bid submission, only after receipt of the Transaction Fee by MSTC Limited.

NOTE: The intending bidders are advised to remit the “Transaction Fee” well in advance before the closing time of the event, so as to give themselves sufficient time to submit the bid.

4.2.8 Procedure of payment of Earnest Money and Bid Document Fee through Axis Bank Gateway :

- i) The bidder would be able to access the payment gateway from the Vendor login page of the MSTC ecommerce site (www.mstcecommerce.com → e-Procurement → PSU/Govt. depts. → Kolkata Port Trust) under the icon “HDC EMD/Tender Fee Payment”. Clicking this icon will take the bidders to the Axis Bank Gateway.

Alternatively, the bidder can also access the gateway by from Axis Bank Easy Pay website (<https://easypay.axisbank.co.in> → Others → Haldia Dock

Complex).

- ii)** The bidder will be required to mention the bidder's ID (the ID used by the bidder for logging in the MSTC website) and Bid ID (E-Tender No. of the tender against which the bidder intends to submit bid) and then click 'VALIDATE'.
- iii)** A webpage will populate, where the bidder will be required to select "Earnest Money" OR "Bid Document Fee", then indicate his Mobile Number and the CAPTCHA displayed in the webpage.
- iv)** Depending on the selection, another webpage will come up.
- v)** In case of selection of Earnest Money (EM), the bidder will be required to select the option of With or Without Bank Guarantee. In case of the instant tender, where there is no option to pay the EM through Bank Guarantee (BG), the bidders should select the option 'Without'.
- vi)** The bidder will be required to mention their Bank Account Number, IFSC of their Bank and the name of the account, insert the CAPTCHA mentioned in the webpage and then 'SUBMIT'. In case of Bid Document Fee payment, Bank Account Number would not be required.

An URN Number will be generated. Bidders should keep note of this URN Number for all future reference.

- vii)** Another webpage will come up and the bidder will have the option to select payment methods from – (i) Internet Banking and (ii) NEFT / RTGS, after agreeing with the terms and conditions, by clicking the dialogue box appearing in the webpage.
- viii)** In case of selection of Internet Banking, the bidder will be required to select any Bank of their choice and depending on the selection, the bidder will then be guided to the webpage of the respective Bank.

After validating the payment in the respective Bank, the system will return to the Axis Bank Payment Gateway.
- ix)** In case of selection of RTGS / NEFT, the webpage will generate a payment advice.

The Bank Account Number, IFSC of the Bank, name of the payee, i.e., Haldia Dock Complex, and the amount to be paid will be indicated in the said payment advice. The bidder will also get an SMS and e-mail detailing the same.

The bidder will be required to mention the same correctly in the Bank Challan, which is required to be filled up for payment by RTGS / NEFT in the Bank from where they intend to make the payment.

The bidders should note that Bank a/c number of HDC, mentioned in the Payment Advice, will change for each and every transaction and hence, for each and every payment, the entire process from the beginning will have to be followed for generation of a URN Number.

- x)** For payment of Bid Document Fee, identical process is to be followed.
- xi)** The bidders will be able to know the status of their payment, by using the 'Enquire URN' facility, by mentioning the URN Number in the Axis Bank

login page. Until such time the payment is credited to HDC's a/c, the system will show the status as 'Pending'.

- xii) The bidders should note that until such time the status remains 'Pending', the payment is not made to HDC and mere generation of URN Number will not signify payment of EM or Bid Document Fee. Hence, if the status remains 'Pending' after some time of submitting the RTGS / NEFT payment request at their Bank, then the bidders should contact their Bank to enquire about the status of RTGS / NEFT request.
- xiii) In case of any problem relating to use of the payment gateway, the bidders should contact the tender inviting authority, whose phone number and e-mail address are mentioned in the e-Tender.

4.2.9 Special Note towards uploading required documents:

The intending bidders are instructed to use “**Attach Doc**” button to upload documents in document library. Multiple documents can be uploaded.

4.3 Instructions related to Micro & Small Enterprises (MSEs):

- 4.3.1 For exemption of Bid Document Fee and EMD certificate from MSME / Micro & Small Enterprises (MSEs) / DIC / SSI / National Small Industries Corporation (NSIC) or any empowered Central / State Govt. authority is required.
- 4.3.2 **Micro & Small Enterprises (MSEs) registered with NSIC under Single Point Registration Scheme (SPRS)** are eligible to get the benefits under new **Public Procurement policies** for MSEs as notified by the **Government of India, Ministry of Micro, Small & Medium Enterprises (MSME)** in **The Gazette of India** vide No. 503, dated 26.03.2012.
- 4.3.3 When splitting of tender quantity is not possible purely on technical ground, Trustees reserve the right not to negotiate price with MSE if their price is within the band of L1+15% in comparison with L1 price of non-MSE for consideration of award of order for 20% of tender quantity against any item as per new public procurement policy.
- 4.3.4 If **Micro & Small Enterprises (MSEs)**, registered with NSIC [under single point registration scheme] intend to participate with respect to items for which they are not registered with NSIC, then they will have to deposit full amount of **Bid Document Fee** and **Earnest Money**, in accordance with the **Schedule of Tender (SoT)**. Otherwise, their offer with respect to such items (for which they are not registered with NSIC) will not be considered.

4.4 Other Instructions related to e-Procurement:

- 4.4.1 All notices and correspondence with the bidder(s) shall be sent by e-mail only during the process till finalization of tender by HDC, KoPT. Hence, the intending bidders are required to ensure that their e-mail IDs provided are valid and updated at the stage of registration of bidders with MSTC (i.e., Service Provider). The intending bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).
- 4.4.2 In all cases, an intending bidder should use their own ID and Password, along with Digital Signature, at the time of submission of their bid. It is mandatory that all bids are submitted with Digital Signature Certificate (DSC), otherwise the same will not be accepted by the system.

- 4.4.3** Addenda, Corrigenda and Queries & Clarifications (with respect to the instant e-Tender), if any, would be hosted in the e-Procurement portal of MSTC.

Since there is no provision to take out the list of intending bidders downloading the bidding documents from the websites mentioned in the Tender Notice, the intending bidders are requested to check the website of MSTC to ensure that they have not missed any Addenda, Corrigenda and Queries & Clarifications, uploaded against the instant e-Tender, after downloading the bidding documents. The responsibility of downloading such Addenda, Corrigenda and Queries & Clarifications, if any, will be that of the intending bidders.

- 4.4.4** No deviation/variation of the techno-commercial terms and conditions of the bidding documents will be considered by HDC, KoPT. Submission of bid in the e-Tender platform by any bidder confirms their acceptance of the techno-commercial terms and conditions of the bidding documents.
- 4.4.5** HDC, KoPT reserves the right to accept or reject any bid (in full or part) and to annul the bidding process and to reject all bids, at any time prior to contract award, without assigning any reason thereof and without thereby incurring any liability to the bidders.
- 4.4.6** Any order resulting from this open e-Tender shall be governed by the terms and conditions mentioned therein.
- 4.4.7** All electronic bids submitted during the e-Tender process shall be legally binding on the bidders. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by HDC, KoPT will form a binding contract, between HDC, KoPT and the bidder, for execution of the work. Such successful bidder shall be called hereafter the 'CONTRACTOR'.
- 4.4.8** The bids will be evaluated based on the filled-in Technical & Commercial formats and the requisite documents submitted (uploaded) by the bidders.
- 4.4.9** The documents uploaded by bidder(s) will be scrutinized. During scrutiny, in case any of the information furnished by the bidder is found to be false, Earnest Money Deposit of such defaulting bidder(s) will be forfeited. Punitive action, including suspension and banning of business, can also be taken against such defaulting bidder(s).
- 4.4.10** HDC, KoPT, at its discretion, may extend the closing date & time of e-Tender, prior to the closing date & time of e-Tender mentioned in the Schedule of Tender (SoT). However, the closing date & time of e-Tender will not be extended, under any situation, after the due date is over.

4.5 Opening of Part-I (i.e. Pre-qualification & Techno-commercial Bid) and Part-II (i.e. Price Bid) :

- 4.5.1** **Part I** (Pre-qualification & Techno-commercial Bid) will be opened electronically on specified date and time, as given in the Schedule of Tender (SoT). Bidder(s) can witness electronic opening of bid(s).
- 4.5.2** **Part II** (Price Bid) will be opened electronically of only those bidder(s), who qualify(ies) in the "Pre-qualification & Techno-commercial Bid" [Part I]. Such bidder(s) will be intimated date of opening of Part II (Price Bid), through e-mail, to valid e-mail ID(s) confirmed by them.

SECTION - V

INSTRUCTIONS TO BIDDERS (ITB)

A. GENERAL

5.1 Definition and interpretations :

- (a) the term “in writing” means communicated in written form (i.e. by mail, e-mail, fax, telex, etc.) and delivered against receipt;
- (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) “day” means calendar day; and
- (d) “procurement” means the entire work requirements, as specified in **Section VI Technical Specification**.

5.2 Fraud and corruption

5.2.1 It is the policy of **Kolkata Port Trust (KoPT)** to require that bidders, Contractors, Sub-contractors, and Consultants, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, **KoPT** :

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) “**corrupt practice**” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - (ii) “**fraudulent practice**” means a misrepresentation or omission of facts, in order to influence a public procurement process or the execution of a contract;
 - (iii) “**collusive practice**” means a scheme or arrangement between two or more bidders, designed to establish Bid Prices at artificial , non competitive levels;

and

 - (iv) “**coercive practice**” means harming, or threatening to harm, directly or indirectly, persons or their property to influence their participation in procurement process or affect the execution of a contract;
- (b) will reject a proposal for award, if it determines that the bidder, recommended for award, has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question;
- (c) Will terminate contract, if it determines at any time that representatives of KoPT engaged in corrupt, fraudulent, collusive, or coercive practices during the procurement or the execution of that contract ;

- (d) will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a contract;

and

- (e) will have the right to require that a provision be included in Bidding Documents and in contracts, requiring bidders, contractors, subcontractors, and consultants to permit KoPT to inspect their accounts and records and other documents relating to the bid submission and contract performance.

5.2.2 Furthermore, bidders shall be aware of the provision stated in GCC.

5.3 Eligible bidders

5.3.1 A Bidder, and all parties constituting the Bidder, **should have the nationality of any country**. A Bidder shall be deemed to have nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of the country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or contractors for any part of the contract, including related services

5.3.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder and one or more parties :

- (a) Submit more than one bid in this bidding process.

Or

- (b) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by **KoPT** to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under the instant Bidding Documents.

5.3.3 Participating by a Bidder in more than one bid shall result in the disqualification of all bids, in which such Bidder is involved.

5.3.4 A Bidder that is under a declaration of ineligibility by **KoPT**, in accordance with **ITB Clause No.5.2**, at the date of contract award shall be disqualified.

5.4 Authority in signing the bid / offer

5.4.1 In case the bid is submitted by a **Proprietorship Firm**, the same should be signed either by the **Proprietor** or other person(s), holding a valid **power of attorney / authorisation** from the proprietor, in connection with this bidding process. The signature of such power of attorney holder(s) / authorised person(s) should be attested by the proprietor. Such **power of attorney / authorisation** should be uploaded along with **Techno-commercial Bid [Part I]**.

5.4.2 In case the bid is submitted by a **Partnership Firm**, the same should be signed either by the partner(s), holding valid **power of attorney** from the

partners or other person(s), holding valid **authorisation** from such power of attorney holder(s) , subject to approval of the partner(s) in the matter of giving such authorization, in connection with this bid. The signature of such **power of attorney holder(s) / authorised person(s)** should be attested by the **partners or power of attorney holder**, as the case may be. Such **power of attorney / authorisation** should be uploaded along with **Techno-commercial Bid [Part I]**.

5.4.3 In case the bid is submitted by a **Limited Company**, the same should be signed by the person(s) holding valid **power of attorney / authorisation**, executed in his / their favour (in connection with this bid) and the signature of such **power of attorney holder(s) / authorised person(s)** should also be attested, in accordance with the constitution of the Limited Company. Such **power of attorney / authorisation** should be uploaded along with **Techno-commercial Bid [Part I]**.

5.4.4 Such **power of attorney holder(s) / authorised person(s)** should put his / their signature identical with the attested one, in the relevant documents submitted / uploaded, in connection with the instant bidding process [including “**Techno-commercial Bid**”]. In case of putting different signatures in different documents / offers, all such signatures should be attested by the same person in line with the above.

B. **CONTENTS OF BIDDING DOCUMENTS**

5.5 Sections of Bidding Documents

5.5.1 The contents of the **Bidding Documents** as detailed at “TABLE OF CONTENTS” should be read in conjunction with any addendum / corrigendum issued in accordance with **ITB Clause No. 5.7**.

5.5.2 The Employer (KoPT) is not responsible for the completeness or correctness of the bidding documents and their Addenda, if they were not obtained directly from the source indicated in Notice Inviting e-Tender .

5.5.3 The bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents [considering all addenda / corrigenda issued] may result in the rejection of the bid.

5.6 Pre-Bid Meeting

5.6.1 A prospective bidder requiring any clarification of the instant Bidding Documents shall contact **Sr. Dy. Manager (P&E), HDC**, in writing, or raise their enquiries during the **Pre-bid meeting**.

The **prospective bidders** are requested to submit their queries / observations / suggestions / requests for clarification, in connection with the instant Bidding Documents, in advance, to enable **KoPT** to prepare response / clarifications and make pre-bid meeting meaningful.

5.6.2 As indicated in the Schedule Of Tender, pre-bid meeting will be conducted off-line on behalf of HDC, KoPT. The purpose of this pre-bid meeting will be to clarify issues and to answer questions on any matter (in connection with the instant Bidding Documents only) that may be raised at that stage.

Authorised representative(s) of the prospective bidders will be allowed to attend the **Pre-bid meeting**, which will be held on the date, time & at the venue stipulated in the **Schedule Of Tender (SOT)**.

The **designated representative(s)**, who will be deputed to attend the **pre-bid meeting**, should submit their authorization in this regard. The signature of such designated person(s) should be attested by the authorized signatory of the prospective bidders. Otherwise, the designated person should have to submit the proof of his identity through other means.

5.6.3 The prospective bidders are advised to attend the pre-bid meeting. However, non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

5.6.4 Unless otherwise notified, **all the queries / observations / suggestions / requests for clarification** (related to the instant Bidding Documents only) [including the **queries / observations / suggestions / requests for clarification raised during pre-bid meeting**], received till the date of **pre-bid meeting**, will be considered. **KoPT's** response / clarifications (including description of queries / observations / suggestions / requests for clarifications, but without identifying its source), in this regard, will be communicated to all the known prospective bidders (i.e. who would **attend pre-bid meeting or submit queries / observations / suggestions or requested for clarification**), in writing, well in advance to the last date of submission of bids. The aforesaid **queries / observations / suggestions / requests for clarification** and **KoPT's** response / clarifications will also be hosted in the websites, as specified in the **Notice Inviting e-Tender**.

Any modification to the Bidding Documents, which may become necessary as a result of the **KoPT's response / clarifications**, so issued, shall be made through the issue of an addendum / corrigendum, pursuant to **ITB**.

5.6.5 The Bidder shall be deemed to have **examined** thoroughly the instant Bidding Documents, in full, [considering all addenda / corrigenda issued (if any)], **visited the site & surroundings** and to have **obtained all necessary information in all the matters** whatsoever that might influence while carrying out the job as per the conditions of the instant **Bidding Documents** [considering all addenda / corrigenda issued (if any)] and to satisfy themselves to sufficiency of their bid, etc. If they shall have any issue to be clarified, the same should be brought to the notice of **KoPT**, in writing, as set out in **ITB**.

The bidders are advised to acquaint themselves with the job involved at the site, like availability of labour, means of transport, communication facilities, laws and bye laws in force from Government of West Bengal & Government of India and other statutory bodies from time to time. The Bidder shall be deemed to have examined and collected all necessary information as to risk, contingencies and other circumstances, which may be necessary for preparing the Bid.

Visiting the site shall be at the bidder's own expense. Failure to visit to site will no way relieve the Contractor (successful Bidder) of any of their obligation in performing the work and liabilities & responsibilities thereof, in accordance of the contract.

5.6.6 Necessary Gate Pass/Dock Entry Permit, for entering into the Dock area, will be issued to the designated representative(s) of the prospective bidders, on chargeable basis [as per the extant “Scale of Rates” of KoPT, available at <http://www.kolkataporttrust.gov.in/> of Kolkata Port Trust], to visit the site, for the purpose of inspection only, on receipt of a formal written request. The signature of such designated person(s) should be attested by the authorized signatory of the prospective bidders. Otherwise, the designated person(s) should have to submit proof of his/their identity through other means.

However, during the pre-bid meeting, if the prospective bidders are willing to enter into the dock area, they will be allowed through VIP Pass of HDC free of cost.

Such prospective bidder will be fully responsible for any injury (whether fatal or otherwise) to its designated representative(s), for any loss or damage to property, or for any other loss, damage, costs and expenses whatsoever caused, which, but for the granting of such permission, would not have arisen.

The prospective bidder will be liable to indemnify KoPT against any loss or damage to the property of KoPT or neighbouring property which may be caused due to any act of prospective bidder or their designated representative(s).

5.7 Amendment of Bidding Documents

5.7.1 At any time, prior to the last date for submission of bids, **KoPT** may, for any reason whether at its own initiative or in response to the **queries/ observations/suggestions/requests for clarification**, amend and modify the bidding documents by issuing Addenda/Corrigenda. Such Addenda/Corrigenda will be hosted in the websites, as specified in the **Notice Inviting e-Tender**.

5.7.2 Any Addendum/Corrigendum, thus issued, shall be part of the bidding documents and shall be communicated, in writing, to all the known prospective bidders (i.e., who would attend Pre-bid Meeting or submit queries / observations / suggestions or request for clarification), in writing, well in advance to the last date of submission of bids.

5.7.3 To give prospective bidders reasonable time to take the Addendum / Corrigendum into account in preparing their bids, KoPT may, at their discretion, extend the last date for submission of the bids, prior to the closing date & time of e-Tendering.

C. PREPARATION OF BIDS

5.8 Cost of bidding

The Bidder shall bear all costs associated with the preparation and submission of their bid, and **KoPT** shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

5.9 Language of Bid

The Bid, as well as all correspondence and documents relating to the bid, exchanged by the Bidder and KoPT, shall be written in the **English language only**. If the supporting documents and printed literature, that are part of the bid, are in another language, they must be accompanied by an accurate translation of the relevant passages in the English language, in which case, for purposes of

interpretation of the bid, such translation shall govern.

5.10 Documents comprising the Bid

5.10.1 The Bid shall comprise of the following :-

(a) Pre-qualification and Techno-commercial Bid:

The Pre-qualification & Techno-commercial Bid comprises all documents [including the Bidding Forms (provided in these bidding documents), duly filled in, signed and stamped] required to be submitted as per the Notice Inviting e-Tender, Schedule of Tender (SoT), Instructions To Bidders (ITB) and any other relevant clause(s) of these bidding documents.

(b) Price Bid:

The Price Bid comprises the prices only and the same are to be submitted electronically, through the website of MSTC Limited only.

5.11 Form of Tender

The bidder shall have to submit (upload) the “**FORM OF TENDER**”. This form **must be completed without any alterations** to its format, and no **substitutes shall be accepted**. All blank spaces shall be filled in with the information requested. Such **duly filled in “FORM OF TENDER”** should be uploaded.

5.12 Price Schedule

5.12.1 The Bidder shall quote their price on-line (**through MSTC portal only**) as per the **Price Schedule** (Bill of Quantities) in the Price bid (Part-II), without any condition or deviation. Price indicated anywhere else, in any other form or manner, will not be considered for evaluation of Price Bid.

5.12.2 The Bidder should submit (upload) the **unpriced** format [Bidding Form VI : **PRICE SCHEDULE**], of the instant Bidding Documents, duly filled in the GST rates at appropriate places and signed & stamped as token of acceptance.

5.13 Bid Prices

5.13.1 The prices are to be quoted by the Bidder **through MSTC portal**, considering the work requirements, as detailed in **Section VI (Technical Specification)** and other terms & conditions of the Bidding Documents (considering all addenda / corrigenda issued).

5.13.2 Except where otherwise expressly provided, the contractor shall have to provide all materials, labour, plant and other things necessary in connection with the contract, although everything may not be fully specified, and although there may be errors and omissions in the specifications.

5.13.3 The prices and rates entered (electronically through MSTC Portal) **as per the Price Schedule** (Bill of Quantities), in the Price bid (Part-II), by the **Bidder**, shall include, inter alia, all costs and expenses involved in or arising out of the following:

- (a) Supply, delivery, inspection, transportation (including insurance), handling, receipt and storage of all required materials [in line with

Technical Specification (Section VI)] and equipment at site, erection, testing, commissioning, statutory certification, warranty obligation etc..

- (b) The provision, storage, transport, handling, use, distribution & maintenance of all materials, equipment, machinery and tools, including all costs, charges, dues, demurrage or other outlays involved in transportation.
- (c) The provisions & maintenance of all their staff & labour and their payment, accommodation, transport, fares and other requirements.
- (d) All required first aid, welfare and safety requirements.
- (e) Damage caused to the work and /or construction, plant, materials and consumable stores caused by weather.

5.13.4 Tools, Tackles, lifting machineries, scaffolding, temporary lighting, different vehicular transport etc. required for execution of the whole work will have to be arranged by the Contractor, at their own risk, cost & arrangement, which may be considered, while submitting their rates in the offer.

5.13.5 Rates & amounts quoted by the bidders in the “**PRICE SCHEDULE**”, include all incidental charges [excluding Goods and Services Tax (GST)], as applicable, and charges for packing, forwarding, loading, handling, carrying to any lead, stacking, transportation, permits, overheads & profit, etc. necessary for the complete services as described in this Bidding Document.

GST, as applicable, shall be paid extra against proper invoice submitted by the Contractor.

The contractor will be required to submit GST compliant invoice with all required details and also be required to file timely and proper return so as to enable KoPT to get due credit against GST paid.

In case of any failure on the above account, GST amount, even if paid by KoPT, shall be recoverable from the Contractor.

5.13.6 All quoted rates will remain firm during the validity period of the bid / offer, including any / all extension thereof, agreed by the bidder.

However, changes **in statutory taxes & duties [other than GST] will be adjusted** (within the scheduled completion period), based on documentary evidence.

5.13.7 The Bidder should clearly understand that they shall be strictly required to conform to all terms & conditions of the instant Bidding Documents [considering all addenda / corrigenda (if any) issued], as contained in each of its clauses and **plea of “Customs Prevailing”** will not be, in any case, admitted as excuse on their part, for infringing any of the terms & conditions.

No request for change or variation in rates or terms & conditions of the contract shall be entertained on the ground that the successful Bidder has not understood the work envisaged in the instant contract.

5.14 Currencies of Bid

The **Bidders** should quote the prices in **Indian Rupees (₹)** only.

5.15 Period of validity of bids

5.15.1 Bids shall remain valid for the period of **120 days** after the bid submission deadline date (considering extension thereof, if any) as prescribed in **ITB**. A bid, valid for a shorter period, shall be rejected by **KoPT**, treating the same as non-responsive.

5.15.2 In exceptional circumstances, prior to the expiration of the bid validity period, **KoPT** may request the bidders to extend the period of validity of their bids. The request and the responses shall be made in writing.

A Bidder may refuse the request, without forfeiting their **Earnest Money Deposit (EMD)**. A Bidder granting the request shall not be required or permitted to modify its bid, except when option to do the same has been specifically granted by **KoPT**, in writing.

5.16 Earnest Money Deposit (EMD)

5.16.1 The intending bidders should deposit an amount specified in the **Schedule of Tender (SoT)**, as **Earnest Money Deposit (EMD)**, in accordance with the procedure mentioned therein.

5.16.2 Failing to deposit the Earnest Money, in accordance with ITB, shall be rejected by the Employer (KoPT), treating the same as non-responsive.

For exemption of EMD the bidder is required to upload the scanned copy of the certificate from MSME / Micro & Small Enterprises (MSEs) / DIC / SSI / National Small Industries Corporation (NSIC) or any empowered Central / State Govt. authority.

5.16.3 Refund of Earnest Money Deposit:

Earnest Money Deposit of the successful bidder shall be retained by KoPT and Earnest Money Deposit of the unsuccessful bidders [including the bidder(s) whose Price Bid would not be opened in line with **ITB**] shall be refunded, without interest, within 2 (two) months from the date of opening of Price Bids or on finalization/acceptance of tender, whichever is earlier.

In case the bid of the **successful bidder** is found acceptable to **KoPT** and contract is awarded with them, the **Earnest Money Deposit** of the **successful bidder (Contractor)** shall be retained by **KoPT** till submission of **Performance Guarantee / Security Deposit** (in accordance with **ITB**) and signing of the **Contract Agreement** by **KoPT** and the Contractor (in accordance with **ITB**), and shall be refunded thereafter.

In case, the successful bid is not found acceptable to KoPT, Earnest Money Deposit of the successful bidder shall be refunded after the decision, in this regard, is finalized by KoPT.

5.16.4 No interest shall be payable on the account of Earnest Money Deposit in any case.

5.16.5 Forfeiture of Earnest Money Deposit :

The EMD may be forfeited

- (a) if a Bidder withdraws their offer within the validity period of the bid / offer; and / or, alters / amends any terms and / or condition and / or

quoted rate(s), within the validity period of the offer (excepting when option to do the same has been specifically granted by Kolkata Port Trust, Haldia Dock Complex in writing) making it unacceptable to the Kolkata Port Trust, Haldia Dock Complex;

or,

- (b) if the successful bidder,
 - i) fails to submit the Performance Guarantee / Security Deposit (as per SCC) for the specified sum and in the specified form, within the stipulated time;
 - and / or,
 - ii) fails to carry out the work or to perform / observe any of the conditions of the contract,

For the purpose of this provision, the validity period (of the bid / offer) shall include any / all extension thereof, agreed by the Bidder in writing. KoPT shall also be at liberty to deduct any of their dues from Earnest Money. It should be however be clearly understood that in case of any default in any terms and or condition of the contract after placement of order but before submission of Performance Guarantee / Security Deposit (as per SCC), the same shall be dealt with in accordance with the relevant provisions of contract, including forfeiture of Earnest Money.

D. SUBMISSION OF BIDS AND OPENING OF BIDS (EXCEPT PRICE BID)

5.17 Submission of bids

- 5.17.1** Bidders shall have to submit their bids [both **Pre-qualification & Techno-commercial Bid** and **Price Bid**] on-line **through MSTC portal only**.
- 5.17.2** The Bidder should submit (upload) the scanned copies of all the relevant and required documents, statements, filled up formats, certificates, etc. [in accordance with **ITB**], in the aforesaid portal, in support of their **Pre-qualification Criteria and Techno-commercial Bid**.
- 5.17.3** Before scanning the aforesaid documents, all pages are to be signed by a person duly authorised to sign on behalf of the bidder, pursuant to **ITB**, and are to be embossed with their official seal, owing responsibility for their correctness / authenticity. All pages of the aforesaid documents should be serially marked.
- 5.17.4** Any inter-lineation, erasures, or overwriting, in the aforesaid scanned & uploaded documents, shall be valid only if they are signed by the aforesaid authorised person.
- 5.17.5** The Bidder will have to produce the original documents or any additional documents, if asked for, to satisfy **Haldia Dock Complex, Kolkata Port Trust**.
- 5.17.6** The **Price Bid** comprised the prices only and the same are to be submitted electronically, through the website of **MSTC Ltd.** only. *No hardcopy of priced "Price Schedule" is required to be uploaded.*

5.18 Techno-commercial offer

- 5.18.1** No techno-commercial deviation and variation will be considered by KoPT, except where the Techno-commercial terms and conditions, will be

found as impossible and irrelevant to the bidder.

- 5.18.2** If the Bidder deliberately gives wrong information or conceals any information / fact in their bid, which shall be favourable for acceptance of their bid, fraudulently, then the right to reject such bid at any stage of execution, without any financial liability, is reserved by **KoPT**.

5.19 Priced offer

The Bidder should quote the offered rate appropriately in the PRICE BID, electronically, through the website of **MSTC Ltd.** only. *Price indicated anywhere else, in any other form or manner, would not be considered for evaluation of Price Bid.*

5.20 Deadline for submission of bids

- 5.20.1** Bids must be submitted within the closing date & time **indicated in the Schedule Of Tender (SOT)**.

- 5.20.2** **KoPT** may, at its discretion, *extend the deadline for the submission of bids, prior to the closing date & time of e-Tendering*, by amending the Bidding Documents, in accordance with **ITB**, in which case all rights and obligations of **KoPT** and bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

5.21 Late Bids

This e-Procurement System would not allow any late submission of bid, after the closing date & time, as per the **Schedule Of Tender (SOT)** or extension, if any.

5.22 Withdrawal of bids

- 5.22.1** A Bidder may withdraw, substitute, or modify their bid on the e-Procurement System, before the closing date and time specified, but not beyond.

- 5.22.2** No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder on the **“FORM OF TENDER [for Techno-commercial (un-priced) Bid].”** or any extension thereof. Modification / Withdrawal of the bid sent through any other means shall not be considered by **KoPT**.

- 5.22.3** Withdrawal of bid during the interval between such closing time on due date and expiring of the bid validity period, may result in forfeiture of EMD in accordance with **ITB**.

5.23 Bid opening [except Price Bid]

- 5.23.1** The bids [**except Price Bids**], will be opened at the date & time, indicated in the **Schedule Of Tender (SOT)**.

- 5.23.2** The on-line bid-opening event may be viewed by the bidders at their remote end, by logging on to the e-Procurement System. A copy of the bid opening record shall be made available on the e-Procurement System.

E. EVALUATION OF BIDS

5.24 Confidentiality

- 5.24.1** Information relating to the evaluation of bids and recommendation of contract award shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the contract award.

5.24.2 Any attempt by a Bidder to influence KoPT in the examination, evaluation and comparison of the bids, or contract award decisions may result in the rejection of their bid and forfeiture of **EMD**.

5.24.3 Notwithstanding **ITB Clause No. 5.24.2**, from the time of bid opening to the time of contract award, if any Bidder wishes to contact KoPT on any matter related to the bidding process, they should do so in writing.

5.25 Clarification of bids

To assist in examination, evaluation & comparison of the bids and qualification of the bidders, the Employer (KoPT) may, at their discretion, ask any bidder for a clarification of their bid. The Employer (KoPT) may also ask any bidder to withdraw any terms/conditions mentioned by them in their offer, which are not in conformity with the terms & conditions specified in the bidding documents. In case any bidder fails to submit required clarification within the time stipulated by the Employer (KoPT), in this regard, the tender would be processed in absence of the clarifications, which may result in disqualification of the corresponding bidder for the instant tender. Any clarification submitted by a bidder, which is not in response to a request by the Employer (KoPT), shall not be considered. The Employer's (KoPT's) request for clarification and the response shall be in writing.

No change in the prices or substance of the bid shall be sought, offered or permitted, nor will the bidder be permitted to withdraw their bid before expiry of the validity period of the bid.

5.26 Deviations, reservations and omissions

During the evaluation of bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the bidding documents ;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding documents ; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding documents.

5.27 Responsiveness of bids

5.27.1 Responsiveness of a bid would be determined on the basis of the contents of the bid itself, and clarification(s) in accordance with **ITB**.

5.27.2 A substantially responsive bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

- (a) if accepted, would
 - i) affect in any substantial way the scope, quality, or performance of the work specified in the Contract; or
 - ii) limit in any substantial way, inconsistent with the Bidding Documents, KoPT's rights or the bidder's obligations under the proposed contract; or
- (b) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

5.27.3 Bidders shall not contain the following information / conditions to consider them responsive :

- (a) Either direct or indirect reference leading to reveal the prices of the bids in the Techno-commercial offers;
 - (b) Adjustable prices, other than the provisions stated in **ITB**.
- 5.27.4** If a bid is not substantially responsive to the requirements of the bidding documents, it shall be rejected by KoPT and may not subsequently be made responsive by the bidder, by correction of the material deviation, reservation, or omission.
- 5.28 Nonconformities, errors and omissions**
 - 5.28.1** During examination, evaluation & comparison of the bids and qualification of the bidders, the Employer (KoPT) may, at their discretion, ask any bidder for submitting any document(s) [in case of shortfall in required documents (relating to capacity or otherwise)]. In case any bidder fails to submit required documents within the time stipulated by the Employer (KoPT), in this regard, the tender would be processed in absence of the documents, which may result in disqualification of the corresponding bidder for the instant tender.

Any document submitted by a bidder, which is not in response to a request by the Employer (KoPT), shall not be considered. The Employer's (KoPT's) request for submission of further document(s) shall be in writing.
 - 5.28.2** **KoPT** shall examine the bids [including the further documents / clarifications received in accordance with **ITB**] to confirm that all documents requested in **ITB** have been provided and to determine the completeness of each document submitted.
 - 5.28.3** Provided that a bid is substantially responsive, **KoPT** may waive any nonconformities or omissions in the bid that do not constitute a material deviation.
- 5.29 Examination of Pre-qualification Criteria**
 - 5.29.1** At first, the contents of the documents, submitted in support of the Pre-qualification Criteria [including the further documents / clarifications received in accordance with **ITB**] will be scrutinized and evaluated.
 - 5.29.2** KoPT may, at their discretion, seek any other detail(s)/document(s), in subsequent course, to ascertain and get confirmed about the competence of the bidder. In case any bidder fails to submit required detail(s)/document(s) within the time stipulated by the Employer (KoPT), in this regard, the tender would be processed in absence of the documents, which may result in disqualification of the corresponding bidder for the instant tender. While evaluating Pre-qualification Criteria, regard would be paid to National Defence and Security considerations of the Indian Government.
 - 5.29.3** In case it is found that the Pre-qualification Criteria has not been fulfilled by the bidder or otherwise their participation has not been found acceptable to **KoPT**, the respective bid will be treated as non-responsive and "Price Bid" of the respective Bidder will not be considered further.
- 5.30 Examination of Techno-commercial offer**
 - 5.30.1** After scrutiny of the **Pre-qualification Criteria**, **Techno-commercial Bids** of the Pre-qualified bidders [as indicated above] will be scrutinized & evaluated.

5.30.2 KoPT shall examine the bid to confirm that all terms and conditions specified in the **Technical Specification (Section VI)**, **GCC (Section VII)** and **SCC (Section VIII)** have been accepted by the bidder without any material deviation or reservation or omission.

5.30.3 If on examination of the “**Techno-commercial Bid**” of pre-qualified bidders, it is found that they have not accepted all Techno-commercial terms & conditions of the Bidding Documents [considering all addenda / corrigenda, issued], “**Price Bid**” part of such bidder(s) will not be opened. “**Price Bid**” part of other bidder(s) will be opened subsequently as per procedure. Decision of **KoPT** on this matter shall be final.

5.31 Opening of Price Bid

PRICE BIDS of the bidders, who qualifies in the “Pre-qualification & Techno-commercial Bid”, will be opened on a later date, upon due intimation to the concerned bidders at their address furnished by them in their bid.

The on-line price-bid opening event may be viewed by the bidders at their remote end, by logging on to the e-Procurement System. A copy of the price-bid opening record shall be made available on the e-Procurement System

5.32 Comparison & Evaluation of Price-Bid and selection of Successful Bidder

5.32.1 While evaluating the Price Bids, the Price quoted by the Bidders against all items of the **Price Schedule** shall be taken into account and the **TOTAL PRICE**, which would be arrived at, by adding quoted prices of all items of the **Price Schedule**, will be considered for evaluation. Selection of the successful bidder will be made on the basis of the **lowest “TOTAL PRICE”** thus arrived.

5.32.2 In case it is found that the quoted “**TOTAL PRICE**” is same for two or more bidders and their bids become the lowest, the respective bidders will be given chance to submit their fresh Price Bid, subject to the condition that the fresh rate so quoted must be less than the rate quoted by the respective bidders earlier. Selection of the successful bidder will be made on the basis of the revised **lowest “TOTAL PRICE”** thus obtained.

5.33 KoPT’s right to accept any bid and to reject any or all bids

5.33.1 KoPT reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders.

F. AWARD OF CONTRACT

5.34 Subject to **ITB Clause No. 5.33.1**, **KoPT** shall award the contract to the Bidder whose offer has been determined to be the lowest evaluated bid [as per **ITB Clause No. 5.32**] and is substantially responsive to the Bidding Documents.

5.35 Notification of award

Prior to the expiration of the period of bid validity or extended validity in accordance with **ITB**, **KoPT** shall notify the **Successful Bidder**, in writing, that their bid has been accepted. The notification letter (hereinafter called the “**Letter of Acceptance**”) will be treated as “**Order Letter**” and will constitute the formation of the contract. Such order letter shall specify the “**Contract Price**” in line with **SCC Clause No. 11.1.4 a).**

5.36 Signing of contract agreement

- 5.36.1** After placement of order, **contract agreement** [as per the form furnished in **Section- XI**] should be executed between **Kolkata Port Trust** and the **Contractor (Successful Bidder)**. In this respect, within a week of receipt of intimation regarding acceptance of their bid, the successful bidder shall have to submit, at their cost, required **Stamp Paper** [Non-judicial Stamp Paper of worth not less than **₹50.00**] & **dummy papers** (for three sets).

Immediately after receipt of the above papers & documents, **KoPT** will send three sets of **contract agreement form** [one set printed on Stamp Paper & dummy papers and two sets printed on dummy papers], photocopy of **one set of documentary transactions between them and KoPT** (till finalisation & award of the Contract) and **Contract Documents** [incorporating all accepted changes and addenda / corrigenda issued, if any], duly signed by the representative of **KoPT** at appropriate places on each pages.

Within a week, thereafter, the Contractor (Successful Bidder) shall have to return **Contract Agreement forms** (three sets) [after affixing their common seal], the set of **documentary transactions** and **Contract Documents**, duly signed by them at appropriate places on each page.

- 5.36.2** The **contract agreement form & Contract Documents** should be signed by the authorized persons of the Contractor, authorized in this respect.

- 5.36.3** After receipt of the **contract agreement forms** (three sets), duly signed by authorised person of **KoPT** & authorized person of the Contractor (Successful Bidder), the same shall be kept under **KoPT's** custody, after affixing the Common Seal of **KoPT**.

One copy of such **executed contract agreement** (on dummy paper), along with one photocopy of signed **documentary transactions** and **Contract Documents** will be handed over to the Contractor for their record & future reference.

- 5.36.4** Total process of executing contract agreement should be completed within 28 days of issuance of "Letter of Acceptance" by **KoPT**. Until such contract agreement is executed, the other documents referred to the definition of the term "Contract" [**GCC Clause**], shall collectively be the contract.

5.37 Performance Guarantee / Security Deposit

- 5.37.1** Within **twenty-eight (28) days** of issuance of "**Letter of Acceptance**" by **KoPT**, the Successful Bidder shall provide the **Performance Bank Guarantee** in accordance with the **Special Conditions of Contract**, using the form furnished in **Section XI**.

- 5.37.2** Failure of the successful bidder to submit the above-mentioned **Bank Guarantee for Performance Guarantee / Security Deposit** or sign the contract agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the **EMD** in accordance with **ITB**.

- 5.37.3** All costs, charges & expenses, including Stamp Duty, shall be borne by the Successful Bidder.

- 5.37.4** No interest / charge, of whatsoever nature, shall be paid by **KoPT** on the amount of Performance Guarantee / Security Deposit, held by them (as per **SCC**) at any stage.

SECTION - VI

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATIONS FOR MATERIALS AND WORKMANSHIP

Haldia Dock Complex (HDC) is constructing a riverside jetty viz. Outer Terminal –II (OT-II). HDC would also like to install and commission fire-fighting system as per OISD -156 standard at OT-II. Construction of such fire fighting system should be carried out along with the progress of work related to civil construction of OT-II.

The scope of work of the contractor shall cover design, detail engineering, supply of all materials, construction, fabrication, installation, erection, painting, testing, commissioning including obtaining certificates from Statutory Authorities (viz. OISD, PESO etc.) related to complete Fire protection system for upcoming outer terminal – II, for next five years, as per detailed scope of work, design basis, standards, specifications, applicable local and international codes etc.

Therefore the Tenderers who are having necessary experience in the above field are requested to submit their offer as per the Technical specification given below for Design, Manufacture, Supply, Erection, Testing, Commissioning, and Handing over Modernized Fire Fighting Facilities for Upcoming Outer Terminal II (OT-II).

TECHNICAL SPECIFICATION

1. SCOPE OF WORK AT OT II

The work included in this Tender is for Design, Supply, Fabrication, Erection, Testing, Commissioning and handing over of Modernized Fire Fighting Facilities for OT-II, at Haldia Dock Complex; Kolkata Port Trust. The total system shall be designed as per OISD 156 and other good engineering practices.

The specification describes certain broad requirements for guidance of the contractor. Everything may not be fully specified and there may be modifications required. This however, shall not relieve the contractor for not completing the work in every respect and or in accordance with the modern practice so that the fire fighting system will be completed and will satisfactorily carry out all the duties specified. The tenderer shall quote for the complete system. The technical bid should contain full details of the system so quoted. The tenderer may propose modifications if any to the specifications in a separate list supported by reasons and HDC will examine the modification for its consent as per the guide lines.

The materials to be used in the work shall be of the best quality following the standards to comply with the requirements explained in the specification and as per the appropriate Indian Standard Specifications specified in the list enclosed, and shall be suitably tropicalised and designed to withstand the saline atmosphere at site.

The Tenderer may quote separately for any other items as extra which are not specifically brought to the schedule but which in his opinion are necessary for the proper commissioning of the fire protection system and its satisfactory operation.

2. GENERAL REQUIREMENTS

i) Fresh water shall be used as the primary source for water supply for fire fighting. All the relevant system sub-systems must be selected based on compatibility with service conditions mentioned in guidelines enclosed. The water based fire fighting systems for the protection of the OT-II shall comprise the following components:

- a) Hydrant / Spray system
- b) Jumbo nozzle
- c) Tower and Ground Monitor System
- d) Foam system

ii) Hydrant system, Jumbo nozzles, Tower and Ground Monitors to be serviced by dedicated fire line of adequate size.

iv) The header pipe should have looping system to keep pipeline pressure. These lines must have adequate isolation valves for flexibility as well as exclusivity and connectivity. Minimum 12 Nos. isolation valves to be provided. However, quantity mentioned is only approximate and will be as per Tenderer Design.

v) The OT-II foam system to be connected to foam tank and these foam tanks must be interconnected to the fire-fighting system in such a way that there should not be any delay or loss of foam.

vi) The fire pipeline sections should generally be joined by welding. Flange Joints shall be minimum. For the entire length adequate number of expansion joints shall be provided. These lines shall be fitted with isolation valves for carrying out efficient and swift repairs if needed.

vi) Total number of Diesel engine pump sets required is six (4 running and 2 Stand-by)

vii) Total number of electrical jockey pump sets required is two (1 running and 1 stand- by)

viii) Each jockey pump shall be capable of 50 m³ per hour capacity to maintain system pressure at 12 kg/cm² minimum.

ix) Each fire pump shall be capable of 720 m³ per hour capacity.

x) Minimum design flow rates and pressures to be achieved at various locations at OT-II as per design philosophy and criteria. The fire water system should be designed for a minimum residual pressure of 7 kg / cm² at the hydraulically remotest point of application in the terminal.

3. For OT-II simultaneous firewater required for 3 x 6000 LPM water/foam, Tower monitors, plus equivalent to 3 x 6000 LPM Jumbo curtain nozzles along with ground monitors and water hydrant.

4. Supply & erection of 3 Nos. long range electrically remote controlled foam / water tower monitors and accessories. Foundation work for Tower monitors on loading area platform shall be carried out by the contractor.

5. Supply and installation of 114 to 406 mm dia. Pipe for tower monitors, hydrant and water curtain lines.

6. Jumbo nozzles, on the central loading platform in front of the loading/ unloading arms along with associated piping, restriction orifices, motorized valve, strainer, cables, etc., and capable of operating from the control panel for Oil Jetty and operational from jetty also.
7. Double headed fire hydrants with 2 separate landing valves. Fire hydrants to be installed in the fire water network at 30min high hazard area and 45m interval in other areas as per OISD156.
8. Hose cabinets each with 2 Nos. of 15 meters length reinforced rubber-lined hosepipe with end couplings and nozzles for OT-II to be provided. Long Spray Nozzle, Jet Spray Nozzles etc., shall be provided.
9. Pump house to contain 4 Nos. Diesel engine driven running and 2 Nos. Diesel engine driven stand-by water pump capable of maintaining fire monitor water/foam flow rate of 720 m³/hr each.
10. 1 No. Electric driven Jockey pump (running) and 1 No. Electric driven Jockey pump (stand – by) capable of maintaining 50m³/hr flow rate being provided at OT-II such as to keep water lines pressurized at 12 kg/cm². It should keep entire water system pressurized and automatically start and keep the system pressurized at 12 kg/cm² in the event of pressure drop by 1 Kg/cm².
11. 1 No. Electric driven foam pump (running) and 1 No. Electric driven foam pump (stand-by) capable of 32 m³/hr flow rate being provided for OT-II. Necessary cabling with associated piping, valves, pressure gauges, strainer, orifice plates etc. complete for operation from control panel shall be arranged by the contractor.
12. Stainless Steel (SS 316) foams tank of capacity 32 KL for OT-II with associated piping valves and controls, level indicators, level alarms & Foam filling electric pump of 50LPM capacity with SS. 316 piping & valves, safety valve, non-return valve etc. Necessary power supply at pump room alone shall be provided by the Haldia Dock Complex; Kolkata Port Trust.
13. Foam proportioning system with piping valves, gauges, and pressure switch with control panel cable work shall be furnished.
14. The control room will house the followings: -
 - a. Remote controlled motor operation panel & Diesel Engines.
 - b. Operation of Motor operated valves panel.
 - c. Operation of Foam pumps (Start/Stop)
 - d. Control Panel for the Gas Detection System & Flame Detection system for Jetty. Control room to be provided with emergency switch for the Pumps, Diesel Engines, and Motors.
 - i} Remote control for tower monitors to be provided.
 - ii} Remote control for Diesel Engine and Jockey pumps, Motorized valves to be provided.
 - e. Operation of Diesel driven main fire pump from control Desk with annunciator. Jockey pump running status & Mimic Diagram shall be provided. Necessary cabling is also in the scope of the contractor.
 - f. Starting of DG set and changeover of power to emergency power.
 - g. Pressure sensors switches & safety cut out.
15. PA System, Flame / GAS Detection System at OT-II as per the details enclosed.
16. 5 Kg DCP, 10Kg DCP, 75Kg wheel mounted DCP fire extinguisher and 6.8kg CO2 extinguisher shall be provided as per the OISD 156 norms.

17. Supply, loading /unloading & filling of Foam in each tank.

18. Suitable terminations and cable lying from pump house to control tower in ground, trenches, Fire resistant cable trays. Supply and erection of cable trays, NP4 hume pipe and construction of trenches will be the scope of contractor wherever required. FRP cables tray thickness shall not be less than 6mm and hot dip galvanized cable tray shall not be less than 3mm.

19. All the power and control cables (FRLS) from control tower to all the equipments under the scope of fire fighting work on approach trestle, service platform and foam pump room shall be Fire Survival Cables & supply and laying of these cables will be in scope of contractor.

20. All control cables (BIS Approved) shall be of red color. In case red color cables are not available, any color other than black may be used.

21. Design, Supply, Erection of electrical power distribution system from pump house and motor control centers /Control Desk to energize all LT motors and Equipment/Devices to be supplied. Supply and installation of LT switch gears, Power and control cables from motor and control centers and all other equipments / devices is under the scope of the contractor.

22. Contractor will install power distribution board & take the power supply for all the equipment covered in this specification under contractor's scope from power distribution board.

23. All the cables under the scope of Contractor are of voltage grade 650/1100V from pump house and to control tower and shall be FRLS cables from control tower to service platform and 650/1100V LT cables from panel to motor will be in the scope of the contractor.

24. All the supports and steel structures required for LT panels, battery charger etc. shall be provided by the Contractor. The material of bus bar in all LT panels shall be of copper.

25. Contractor shall furnish the cable schedule and calculations in support of suitability of the selected cable sizes.

26. Contractor shall be responsible for compliance of the system designed to the requirements of statutory bodies OISD (Oil Industry Safety Directorate) .

27. Any Individual item/equipment and material including contractual obligations which are not specifically mentioned in the specification but are required to make the equipment and installation complete and also for trouble free maintenance, for safety provision, smooth and safe operation for equipment as well as smooth execution of contract to the complete satisfaction of the Owner shall be Contractor's responsibility, scope of supply and work.

28. Obtaining statutory clearances from Electrical Inspector /Factory Inspector / CCE, Nagpur, Dock Safety and any other statutory Government bodies as applicable of tenderer's scope of work, installation, etc. is in the scope of the scope of the contractor.

29. Following documents shall be submitted by Contractor for approval before starting of the work .

i) GA drawing of Fire Water pump, Jockey pumps etc.

ii) GA drawing of diesel engine drives.

iii) Design Calculation, Data sheet and Performance curves of the Pump.

iv) Flow diagram of Fire Fighting system.

v) Layout Diagram of Fire pumps House.

vi) Foundation Details of Pumps, Diesel Engines, Motors, Pipe Trestle Line

vii) Pipe line layout diagram.

viii) Brief technical write up of the system being offered and their design considerations. Technical schedules of all pumps, Motors, and Diesel Engines, Jockey pumps, actuated valves, Ground Monitor, Foam Proportioned system, Foam Tank and Tower Monitors to be furnished by the Tenderer. The above documents/ drawings are to be submitted along with the bid.

After the award of contract, five sets of drawings are to be submitted within one month for approval. (From the date of award of contract).

i) Design, detail engineering, development including preparation of power control, interlocking and sequence, annunciation schemes, layout drawings etc. for MCCs, Control desks & LCS of entire system.

ii) Detail engineering for earthing, lighting protection, installation of trays, cabling, external connection/wiring and related drawings for all the works, complete in all respect.

iii) Submission of all the drawings required for detail engineering, erection including foundation drawing for all equipment/ pump / drives, testing and commissioning.

iv) Dimensional layout & sectional drawings for complete scope of work including pipe and cable layout. Complete Electrical System drawing to be furnished by the Contractor.

v) Write up / manual on Operation control monitoring of the fire water, Tower Monitor, Foam system, Water curtain system, etc

vi) Manual for Maintenance, overhaul, replacement parts of the equipment.

vii) Replaceable parts with ordering information.

viii) Leaflets, catalogues of equipment, accessories etc

ix) Material test certificates, Equipment test certificates, Cable test Certificate etc

x) CPM & Pert chart.

xi) 5 copies of laminated drawing of the Fire Water, Tower monitor system.

xii) Any other certificate/ drawing/ manuals deemed necessary by the HDC, KoPT.

xiii) Wherever applicable soft copies, CDs, CAD drawings are to be given after maximum of 1 month from the date of award of the contract.

The Contractor shall be responsible for

- i) Supply, assembly, factory painting, factory testing, packing, Forwarding, transit insurance, inspection, supply and unloading at plant storage room. HDC, KoPT shall provide storage facility based on the availability and applicable storages charges shall be payable by the contractor as per scale of rates of KoPT.
- ii) In-plant transportation to erection site, installation, mounting, laying, erection, testing, successful commissioning and handing over to the KoPT.
- iii) Safe custody including insurance during storage, Transit, erection, testing, and commissioning of all Mechanical and electrical equipment, cables, erection materials and working persons.
- iv) The scope of supply shall include complete erection accessories and materials, all steel members (angles, channel, plate, sheet etc.) for installation of electrical equipment, cable trays, trays installation materials and trays accessories, cable supporting structures, cable glands, cable lugs, ferrules, cable markers, jointing and termination kits and materials, pull boxes and all consumable materials for complete laying and termination of cables, erection of electrical equipment and earthing system, lighting protection system etc.
- v) The Tenders shall include in his scope of supply all chequered plates,(Aluminum alloy, minimum 5 mm thick in pump room floors) components, materials, accessories and sundry item required to render the installation/erection fully operative in all respect even though every individual items may not have been detailed out explicitly in the specification.
- vi) Equipment earthing, cable trays earthing, building structure earthing etc.
- vii) Supply of complete earthing accessories, earthing junction boxes, strips, lugs, welds etc. as required during erection and testing.
- viii) Obtaining statutory clearness from Electrical Inspector/Factory Inspector/CCE, Nagpur, Dock Safety and any other statutory Government bodies as applicable of Contractor's work, installation, drawings etc.

31. TRAINING SCHEME:

The Contractor shall prepare and submit in the tender a comprehensive scheme of training for a period of 1 month within guarantee period for operational and maintenance personnel, covering all the system Fire Protection system, foam system, gas detection system etc operation, maintenance, troubleshooting etc. The programme shall be prepared by the Contractor shall be reflective and appreciative of the long term interest in the sustained operation of the systems, equipment provided.

32. The contractor should provide all operating manual and list of essential spare parts at the time of handing over the system to HDC

33. MATERIAL OF CONSTRUCTION & SPECIFICATIONS

33.1. SPECIFICATION FOR MOTOR:

Purpose : To give required drive to the pump
 Standard : IS 325
 KW & RPM : To be specified by supplier

Type : Squirrel cage induction motor with Space Heater
 Volts : 440V \pm 6% for jockey Pump
 Frequency : 50 Hz
 Protection : IP55, TEFC
 Rating : Continuous
 Insulation : Class – F
 Type of starting: Star/Delta Starting for Jockey pump
 : Soft starter or DOL starting for Foam / Fire pump
 Shock Grade: STD. Marine Duty.
 Approval by: HDC, KoPT / 3rd Party inspection agency.

34. ENGINE SPECIFICATION

The engine should be turbo-charged, vertical inline, heat exchanger type water cooled, four stroke, cold start, heavy duty compression ignition engine. The engine shall be provided with self starting arrangement comprising of battery, cable & self starter and manual cold starting kit. The engine shall have protection against low lube oil pressure, high lube oil temp and high water temp. The Engine shall be capable of remote operations also. Lube oil gauge, water temperature gauge and lube oil pressure gauge to be provided and mounted on a separate panel away from the engine with necessary piping etc. and fitted to the same base plate with anti-vibration mounting. Silencer/muffler and other standard accessories are to be provided as necessary. Engine performance to be tested and certified as per IS 10002.

Purpose : To give Required Drive to the pump specified (720 m³/Hr @ 16 Kg/cm²)
 Engine HP : To be specified by supplier.
 Speed : To be specified by supplier.
 Air Starting : Free Air Consumption 8 Cu Ft/ Sec.
 Minimum estimated starting time per attempt to be 3sec.
 Max. Working air pressure 150 Psi.
 Electrical : DOL starting to be provided in addition to air starting.
 Gear Drive : AGMA460.5 or Equivalent.
 Coupling : Mechanical Flexible Coupling.

35. OTHER ACCESSORIES:

- i) M.S. fuel tank of all welded construction to be provided. The capacity of the tank of 6mm thick shall be sufficient to allow the engine to run on full load for six hours continuously. The tank to be provided with suitable level gauge so that oil level in the tank can be viewed from outside.
- ii) Necessary hoses, for transfer of fuel from tank to fuel pump and return line from injector leak off to fuel tank to be provided.
- iii) Companion flanges to be provided for both suction & discharge port.
- iv) One No. foot valve having size 2 inch bigger than the suction port dia. with strainers.
- v) Additional engine starting panel preferably wall mounted, comprising of start bottom, stop bottom, ammeter, battery charging indication with necessary piping & cables to be provided at the pump room.
- vi) As the system will be in auto mode with the help of Jockey pump, the engine panel shall be incorporated with suitable provision on panel of Auto/ manual operation

vii) Once the main pump starts running the jockey pump to be in cut off mode.

36. OTHER STIPULATIONS:

i) Quoted Engine should conform to the specification for firefighting use or UL-listed and necessary certificates in this respect must be enclosed along with the offer.

ii) All technical documents must be accompanied with detailed technical literatures, and detail drawing of steel skid frame for technical scrutiny.

iii) All documents must also be accompanied with detailed foundation drawing and electrical/instrumental panel connection drawings.

37. ASSOCIATED PIPING:

i) All the pipes for carrying water to be used in the system shall be as mentioned in Bill of Quantities with relevant item having suitable wall thickness. The Contractors shall provide the required pipe support, specials reducers, expanders, puddle pipe, fittings, flanges, gaskets, nuts and bolts etc. Fabrication and inspection of pipelines shall be in accordance with following codes: BIS-9595, 814, 822, 4853, 3703 and as per the guidelines.

10% of field weld joints shall be x-ray tested and if the results are unsatisfactory, the same has to be removed, re-welded and radio graphed to ensure sound weld. Doubler plates for piping supports shall be provided by contractor for running the main fire fighting pipelines on approach trestle. The Contractor as required at his cost shall provide necessary steel clamps, saddles and support for duct foot bends etc. Suitable support pads to be provided to the pipelines wherever it rests on the pedestals. The vertical pipeline to water / foam monitor shall also be properly supported / fixed by providing suitable steel brackets/clamps and stays etc.

ii) All pipelines to be laid on service platform, pump houses are to be supported by providing steel / R.C.C. saddles with clamps fittings and fixtures.

iii) All pipes carrying foam compound to be used in the system shall be of stainless steel 316 grades of suitable schedule and should be hydrostatically tested to 1.5 times of operating pressure.

iv) All pipes should be supplied in complete conformity to all requirements specified in the standards.

v) Suitable pressure gauges to be provided in the fire water network / foam injection lines at strategic locations.

vi) Pipe –water calculation to be furnished by the Tenderer.

vii) Requirement of main pipe line given in Bill of Quantities

38. REMOTE CONTROL TOWER MOUNTED MONITORS:

38.1 The monitor shall be suitable for both foam and water. Each tower monitor shall be capable of discharging 6,000LPM of expanded foam and 6000 LPM of water at 11 Kg/cm² inlet pressure over a range of 95 m respectively in horizontal direction and 45 m in vertical Direction. The inlet Pressure of 11 Kg/cm² is indicative only. It is the responsibility of the Tenderer to select a suitable monitor to

ensure throw of 95 m from tower using the main pump specified. All the monitors shall be capable of discharging foam solution of AFFF concentrate low expansion foam.

39. THE MATERIALS USED FOR DIFFERENT PARTS OF THE MONITOR SHALL BE AS UNDER:

- i) Barrel, Body – SS316
- ii) Worm and Worm Wheel used for vertical and horizontal rotation of monitor- Zinc free bronze.
- iii) Horizontal and Vertical Swivel incorporating ball bearings- SS316
- iv) Column - Water/Foam solution Branch pipe-SS 316
- v) Bolts, Nuts & Washers- SS316
- vi) Electric Motors- IP 56, Flame /Explosion proof and 415 Volt.
- vii) Electro Hydraulic power pack unit, end couplings of braided hoses etc.,

39.1 The Monitor shall be capable of 340° rotation in either direction in horizontal plane and 60° (elevation) and 70° (depression) in vertical plane. Suitable electro-Hydraulic /equipment shall be mounted on the monitor so that rotation of the monitor can be achieved by remote control. The monitors shall also be fitted with deflectors remotely controlled from the terminal control building. The Tenderer should include one hydraulic / electrical operating station at the base of each Tower which can be used in case of failure of remote control from control building. The monitor assembly shall be designed to resist the nozzle reaction force experienced during the operation of the monitor. The monitors shall be provided with a change over valve of suitable design for instantaneous switch over from foam to water or vice Versa. The entire assembly shall be tested to internal hydraulic pressure of 20Kg/ cm². A suitable pressure gauge shall be provided to the inlet connection of the monitors at the top of tower and on platform. Performance data is in still air condition.

40. OTHER ACCESSORIES / EQUIPMENTS REQUIRED ARE:

- i) Pressure Gauges are to be provided at the bottom of the monitor and further at the remotest point from the jetty.
- ii) Reservoir SS 316 material with Foam level indicator.
- iii) Directional double acting spool type valve with 70 Kg/cm² maximum operating pressure.
- iv) Relief valve at 70 Kg/ cm².
- v) Power pack tubing of copper/SS.
- vi) 10mm male hydraulic connection with 6 nos. 10 x 1 M long, Teflon tube with SS braid, tested at 70 Kg/cm².
- vii) Pump electric driven type. Concrete cover for tower monitors to be made by materials (Cement, Aggregates and Reinforcement bars) Sampling and testing as specified by Bureau of Indian Standards. Concrete design mix shall be as per IS: 10262 Design and working drawings for civil works and Quality assurance plan for the same to be submitted for approval by, HDC, KoPT.

40.1 Remote Control Station for Tower Monitor:

Remote Electric Control Station, indoor desktop control for operation of monitor, steel enclosure complete with following control features. Panel to be mounted in a safe area.

- i) Common joystick per monitor for up/down left/right movement.
- ii) One push button per monitor for nozzle spray/straight stream pattern/foam/fog.
- iii) Red light indicator to show hydraulic oil pump control circuit is energized, one indicator per monitor.
- iv) Power On indicator.
- v) Operating voltage - 24V DC for control units and 0.75 HP, 3phase for pump drive.
- vi) Foam pump on/off switch with running light indication.
- vii) Motorized Ball valve on/off switch.
- viii) Electrical conduit/wiring or FRLS cabling is within scope of tenderer
- ix) Hydraulic oil supply is in scope of tenderer.
- x) Monitor manual override provided from monitor itself.
- xi) Adequate Lines of tubing for interconnection from the monitor to hydraulic power to be supplied, (i.e. if kept more than 1.5 meters away from the monitor)
- xii) If power pack is mounted on the tower then no tubing is required at the base of the Monitor.
- xiii) Main control panel is to be installed in Control room in safe area.
- xiv) Remote control with joystick is required to be provided for rotation of foam/water monitors in horizontal and vertical planes.
- xv) The electric remote control panel in the control room shall have the necessary controls for operations.

40.7 Drawing and Charts:

Tenderer along with this technical offer shall submit the following drawings /charts

- a) Outline dimensional drawing.
- b) Guaranteed monitor throw characteristics with freshwater and 3% AFFF solution.
- c) Performance curves with following parameters.
 - i) Terminal pressure v/s horizontal throw range for optimum angle for selected nozzle diameter.
 - ii) Terminal pressure v/s discharge.
 - ii) Terminal pressure v/s reaction force.
- d) Monitor cross section drawing.

- e) Panel dimension drawing.
- f) Any other relevant drawing/ document.

40.8 Tests and Inspection

Following witness tests at manufacturer's works shall be conducted:

- a) Visual inspection.
- b) Dimensional check.
- c) Hydrostatic tests for duration of 30min.
- d) Performance test & endurance test. Performance test to be carried out for 1 hr on each monitor.

Monitor shall be examined as per QAP. Performance test shall be offered with fresh and 3% AFFF solutions after installation. Foam concentrates to be provided by the contractor for the performance trials.

41. JUMBO CURTAIN NOZZLES:

To protect the jetty installations and loading arms from the radiant heat due to fire on the tankers and to facilitate fire-fighting personnel to operate during fire each Jumbo curtain nozzles shall be able to produce dense water curtain of one meter wider on all sides than the surface area at a discharge rate of 3 x 6000 LPM of water at inlet pressure of 12kg/cm² for OT II. The nozzle shall be SS 316 with 100 NB flange connection. Tenderer should submit their scheme offering 3 x 6000 LPM Jumbo Curtain nozzle for Oil Jetty II. The Jumbo curtain header mounted with nozzles shall be laid above ground with supporting and provision of flanged joints in order to facilitate maintenance of jumbo curtain header nozzles as and when required.

- i) Jetty loading arms shall be protected by water curtain system. Approx. 8 Nos. nozzles may be required.
- ii) Water curtain shall be obtained from adjacent hydrant header.
- iii) Jumbo water curtains nozzles shall be provided at OT II.
- iv) Adequate performance parameters as per specifications worked out for these curtain nozzles.
- v) These will be located on the central manifold platform to protect loading arms.
- vi) System shall be operated by a remote electrical and manual system.
- vii) A limit switch shall be provided on each MOV (Nautically operated Valve) to control the valve operation.
- viii) The pressure switch shall be provided downstream of the last isolation valve on the header at each of the jetties in order to register on the Main Panel (MP) a signal indicating "jetty water spray system on".

41.1 Technical Data

Size: 100 NB
 Flow Pressure: 12Kg/Cm²
 Flow at 12 Kg/cm²pressure: 6000 LPM

End connection: Flange to IS 6392, ANSI B 16.5 Class 150
Finish: Natural finish or Epoxy painted
Material and Construction: Nozzles: SS - 316.

Test and Inspection:

- i) Material test certificates for all nozzles shall be furnished
- ii) Drawing / Graph to be submitted along with offer:
 - Nozzles cross-section drawing
 - Spray pattern characteristics.

42. **FOAM SYSTEM:**

42.1 General

- i) Fixed balanced pressure proportioning systems, using foam concentrate pumps for pressurization of concentrate, shall be provided for the protection of the OT II.
- ii) In addition, a manually operated in-line type foam induction system shall be provided at OT II as a stand-by to the above.
- iii) Both the types of systems shall be used to feed the Ground Monitor tower monitors with foam solutions at OT II.

42.2 Jetty Foam System

- i) Pressurized foam shall be pumped by foam concentrate pumps to be installed at Pump room.
- ii) There shall be two foam concentrate pump sets – one main and the other stand-by.
- iii) The pumps shall obtain foam under positive suction from the foam concentrate tank located as per design criteria.
- iv) The foam concentrate pumps shall be driven by Electric motors. The running light indication of the pumps must be available at the Control Room.
- v) The foam tank shall have suitable vent connection.
- vi) It shall have all the relevant instruments such as level gauge, high and low level alarms level switch, provision for dip stick, inlet, outlet, re-circulation and drain connections, as per requirements.
- vii) The foam tank must be erected in the fire pump house with suitable enclosure.
- viii) The foam concentrate discharge header shall be normally charged but not pressurized, except when system is on demand. Flow direction indicators must be painted in the discharge header.
- ix) The water supply header for the foam system shall, however, is normally pressurized up to the main motor operated valves located at the local foam service platforms to be provided immediately behind OT II.
- x) The pressure is maintained automatically by jockey pumps.

- xi) The main NOV's should be normally kept close. However, NOV's located near mooring dolphins should be kept open for quick responses.
- xii) Control for the MOV's at dolphins should be available at the Tower Monitor Control Rooms.
- xiii) The main foam pump must start within 5 seconds failing which second pump must start.
- xiv) Any one of these two pumps can be kept as main foam pump and the other one as stand-by mode.
- xv) Starting of foam pumps should be able to be initiated by the operation of push button systems located next to the pumps /control room.
- xvi) Stopping of the foam pump sets shall be done manually only from the local control panel.
- xvii) Mixing of foam and water in the required proportion shall be achieved either at the viewing station through the diaphragm valves / ratio controllers located there or through manual bypass inline induction system. Flow indicators must be installed in the system to monitor the quantity of foam fed into the system.
- xviii) Foam concentrate for inline induction at OT II as explained above shall be stored at each of jetties in smaller foam concentrate tanks. Proportioning in this event shall be achieved through inline inductors which shall be used as a standby in case of power failure.

43. **FOAM PUMP AND TANK:**

The installation of Foam Pump and Tank is under the Scope of the tender.

Foam Pump:

Quantity: 2 Nos.

Type: Positive Displacement Type

Material of Construction: Stainless Steel SS 316 Type.

- i) Positive Displacement type electricity Driven foam pump of 450 LPM at 17kg/cm² pressure and one pump of same capacity as standby.
- ii) Each Portable electric operated 50 LPM capacity pump for filling of foam from barrels / container to foam tank of pump house.
- iii) Two Nos. Foam Tank of capacity of 31KL foam tank for pump house.

44. **FOAM SUPPLY PUMPS, TANKS, FOAM PIPING:**

One electrically driven (running) and one electrical driven foam pumps (stand-by) will be used to pump foam compound to the proportioner system near the base of tower monitors for injecting 3% of foam in main waterlines

Specifications of foam pumps and foam lines are described below.

45. **GEAR PUMP:**

Two (2) nos. gear pumps (one running and other stand-by) shall be provided. The design, material, construction, Manufacture, inspection, testing and performance of rotary gear pumps shall comply with all currently applicable standards. The pump and the electric motor shall be factory assembled on welded steel base frame with suitable dowels etc.

The gear pumps shall each have capacity of 450 LPM and discharge pressure of 17 Kg/cm². Starting of both the pump shall be from respective starters in the pump house only. A built in relief valve with adjusted setting shall be provided on the pump casing.

The gear pumps shall have external bearings. These external and friction heavy-duty bearings shall be capable of taking the pump thrust. Stuffing boxes shall be so designed that these can be replaced without removing any part other than the gland. Lantern rings, if used, shall be sandwiched between the packing rows and be easily removable.

Adequate space shall be provided between the pump drain connection and the base plate for installation of the drain piping. The pumps shall be supplied with suitable drain rim-type base plate with tapped connections. Coupling, guards made of expanded metal and bolted to the base frame, shall be provided with all coupled pumps. The motor horsepower shall be at least 120% of the brake horsepower of the pump at design point. Motor shall operate at 440 V, 3 phases, 50Hz power supply. The gear pumps shall have stainless steel name plate bearings details like year of manufacture, make model, rated discharge, rated discharge pressure, drive rating speed and weight.

i) Foam Tank: 2 Nos.

Capacity: 15.5 KL each.

Material of construction: SS316

Thickness plate: 6mm thick (min)

ii) Foam piping

Material of construction: SS316 L

45.1 Foam Supply Tank:

Foam supply tank of suitable capacity fabricated out of minimum 6mm thick stainless steel – 316 materials shall be supplied and mounted on suitable supports. To give sufficient strength to the tank suitable baffles / reinforcement of stainless steel shall be provided. The tank shall have 450 mm dia. inspection manhole with cover, dished end and air vent. An overflow vent with isolation ball valve and suitable fixtures shall be provided to the tank. Dished end of tanks shall be without welding joint.

The tank shall have filler capacity of 150 mm dia with SS 316 strainer. A breather valve and a sludge trap shall, be fitted to the tank. The sludge trap shall have cleaning hole and 25mm dia drain pipe with an SS316 ball valve. The bottom of the tank shall have a slight slope towards the sludge trap. All the fittings, other components connected with tank shall be SS 316.

Necessary lifting hooks shall be provided on the tank. The tank shall be fitted with level indicator with transparent graduated scale.

The design, fabrication and testing of tank shall confirm to BIS 2825. The dished end of the tank shall be 100% radio graphed. The foam supply tank shall be calibrated. The calibration chart and the dipstick shall be supplied.

The foam supply tank should have fill connection, concentrate supply connection to the pump, reverse flow connection to the tank from the pump, sump expansion dome, level indicator, and air vent, drain valve and ladder. The fill connection shall have the strainer. Dip Sounding Flange to be provided for alternate sounding method.

45.2 Tank shall be provided with High level and low level alarms.

Material of Construction,

(a) Proportioner

i) Proportioner chamber bypass valve/ Flange nuts, bolts and studs: SS-316

(b) Gear Pumps

i. Casing and end cover: SS-316 (CF8M)

ii. Rotor, Shaft, wearing ring: SS-316

iii. Base plate: 316(CF8M)

iv. Shaft Seal: Suitable for service.

(c) Hand Pump (for foam transfer): All stainless (SS-316)

45.3 Tests and Inspection

a. Material test certificate shall be submitted for all items of the proportioner. For the gear pumps material test certificates shall be submitted for casing, rotor, end cover, shaft and wearing ring.

b. Dye penetration tests shall be conducted for proportioner chamber and gear pump casing.

c. The proportioner and gear pump casing shall be hydro tested at factory for leak tightness at twice the gear pump operating pressure.

d. The proportioner and gear pump shall be subjected to dimensional check.

e. Witness performance test shall be offered for the proportioner and gear pump at factory and at site. The Bidder along with his offer shall submit following drawings /charts:

f. Preliminary outline dimensional drawing showing details of pump set and civil foundation.

g. Performance curve for gear pump for capacity v/s. head showing efficiency, and kW requirement shall be furnished.

The tank shall be hydro statically pressure tested. Test certificates establishing the quality of stainless steel plates to be used for fabrication of the tank shall be produced to Engineer In charge for approval before starting the fabrication work.

45.3 Foam Filling Pump.

Foam filling pump of capacity 50 LPM (electric & Diesel) driven shall be provided for pumping foam from drums/barrels/containers to foam supply tank. The contractor shall carry out necessary piping along with valves etc. from this pump to the tank.

Material of Construction: SS-316L
Capacity: 50 LPM.

45.4 Foam Proportioner System.

Foam concentrate to be used shall be of tested and approved quality AFFF concentrate of low expansion foam (3%). In line balance proportioning system to be provided that consist of proportioner spool valve, foam concentrate valve, duplex gauge check valves, water and foam sensing line, concentrate valves, Foam Proportioned indicator etc. complete in all respect and suitable for outdoor installation. The proportioner shall be inserted in to each fire water line for both tower monitors near base of monitors. Motor operated ball valve shall be provided in foam lines so that either foam water mixture or only water can be thrown from the two monitors for remote operations.

Correct foam liquid proportioning is necessary to produce optimum quantity and quality of foam for extinguishing flammable liquid fire. 3% foam concentrate is envisaged in the system for producing foam water mixture.

The pump capacities mentioned in bill of quantities have *to be* designed so as to discharge foam liquid suitable for maximum quality of foam solution requirement.

However depending upon the exigencies of operation such as either two or one monitor is working, the flow requirement will vary. The excess quantity of the foam liquid shall return to the foam supply tank through the by pass line. Arrangement shall also be provided to prevent water entering the foam concentrate inlet through the foam proportioner. Hand operated SS gate valve shall be provided in the suction side of each gear pump.

46. VALVES:

General

- i) All the valves shall be designed manufactured and tested as per the Indian Standards/ British Standards given in the relevant paragraphs.
- ii) All the flanged valves, irrespective of their pressure rating, shall have flanges to be drilled as per IS: 6392 - 1971 (RA 1993) (Table 17)
- iii) All valves shall be so designed that the effort/ Torque required to operate the valve is minimum.
- iv) All valves shall be designed for 100% tight shut off condition.
- v) All the valves shall be provided with large hand wheel. The face of the wheel shall be clearly marked with the words "Open" and "Close" and an arrow to indicate the direction for opening /closing.
- vi) All the flanged valves shall be supplied with companion flanges of MS plates conforming to IS: 2062 and drilled to IS: 6392. - 1971 (RA 1993) Table 17, CAF gaskets conforming to IS: 2712 -1979 (RA 1994) and Black bolts and nuts conforming to IS: 1363-199.
- vii) For all the Ni-cast iron valves body shall be so designed that at point, wall thickness is greater than the minimum specified in the various standards. Particular attention should be given to the distribution of material to limit the stresses within permissible range and to prevent stress concentration anywhere in the valve design.

46.1 Globe Valve

Globe valves shall be designed as per IS: 788-1984(RA 1990) all the valves shall be fitted with loose disc, which can revolve freely around the stem to avoid falling on the seat at the point of closure.

Stem shall be of one-piece design, heat treated and ground finished to a high accuracy to avoid scoring and to ensure smooth movement in stuffing box.

Gland bush shall be cast iron and machined to a close tolerance to avoid deformation under maximum load conditions and also to prevent sharing of packing while gland is being tightened.

46.2 Gate Valves

All the gate valves shall have mechanical position indicator with adjustable position stopper and lock to prevent over travel. Gate valves shall conform to IS: 780-1984 RA 1990 or IS: 2906 - 1984 RA1990.

Gate valves of size DN 450 and above shall be provided with bypass and drain arrangement. All the isolation valves of size above manufacture from forgings.

46.3 Butterfly Valves

All the butterfly valves (200 and above) shall be gear operated ones & of approved make. The butterfly valves shall be conforming to BS: 5155. The material composition of the various components of the valves shall be as under: -

Body : Cast Carbon steel ASTM A216 Gr. WCB
Disc : AISI-316.
Spindles : SSAISI-410.
Retainer Ring/ Seat Ring : SSAISI410
Disc Seal : Nitrile Rubber
Bearing Bush : Bronze
Body Seat : Nitrile Rubber
Gasket : CAF
Actuator motor : intrinsically safe as per IS 2148
(For motorized valve) : for Gas group HA and HB
Nuts and Bolts : SS316

46.4 Non Return Valve

All the NRV in water line shall be of approved make and conforming to BS - 1868-Class 150. The material composition of the various components of the valve shall be as under:-

Body / Bonnet : ASTM A216 Gr. WCB
Disc / Wedge : SS316

47. PRESSURE GAUGES:

Design and Construction Requirement

- | | |
|--------------|---------------------|
| a) Service | : Salt water / foam |
| b) Dial size | : 150 mm diameter |
| c) Mounting | : Direct |
| d) Accuracy | : 1% |

- e) Over range protection : 25% above maximum line pressure
 - f) Sensing filament : Bourdon
 - g) Scale Range : 0-25 kg/cm²
 - h) Connection : Bottom connection with ½" NPT(M) Threads.
 - i) Weather Protection : IP-54 as per IS 2147 or higher
 - j) Material of Construction Housing : Die cast Aluminum
- Pressure element Shank and movement : SS - 3 1 6

Gauges should be shock resistance type

Manufacturer's test certificate shall be furnished for the following:

Calibration in ascending and descending order at 0, 25, 75 and 100% of the range of the pressure gauge.

- l) Over range protection test.

48. AIR ACTUATED VALVES:

a) The motor shall be of 3-phase squirrel cage TEFC class F insulated (temperature rise limited to class B) IP 67 enclosures both for motor and its terminal box, and with high starting torque. The duty cycle shall be S2- 600 cycles per hour. Wherever required and specially, for outdoor duty, the motor shall be provided with anti condensation heater.

b) Thermistor protection of motor with thermistor motor protection relay shall be provided, as required.

c) Each actuator shall be provided with extremely dependable both 'Open' and torque and / position limit switches. The torque and limit switches shall be provided with suitable means like mechanical selection, end position. The torque switch should not unnecessarily trip during initial unseating hammer blow effect. The anti hammer feature of the torque switch latch shall be available throughout travel including at end position. Once the torque switch has tripped in either direction, it can only be reset by operation of the actuator in the opposite direction. Each switch shall have 2 NO + 2 NC potential free double break contacts. Switch contact rating on inductive Circuits shall be 5A AC at 240 V AC.

d) Actuator shall be provided with motor over-riding feature like hand wheel for emergency manual operation and a limit switch shall be provided whose contacts shall be used in the motor control circuit to forbid the motorized operation during manual operation by hand wheel. Also when the motor is switched 'ON', the hand wheel connection shall be discharged automatically, Motor operation shall always have priority over manual operation.

e) Internal wiring shall be tropical grade PVC insulated, stranded copper conductor cable of 10A rating for control circuits and required rating for motor. All wires shall be clearly numbered at both the terminal block and component ends. The Voltage grade of cables/wires shall be 1100 V terminals shall be segregated from the control terminals by means of an insulating cover. Separate terminal box fitted to switching unit shall be provided. The terminal box shall- be designed for the protection class of IP - 65 inside of the terminal shall be provided attached to the inside of the terminal box cover indicating serial number, external voltage values, wiring diagram number and terminal layout.

f) The actuator shall be suitable for operation at specified ambient temperature. All actuators whether for explosion/hazardous locations or not, shall be neoprene O-ring sealed water tight and dust proof to

IP-67 protection and shall at the same time have an inner watertight neoprene O-ring seal between the terminal box and the internal electrical elements of the actuator, fully protecting the switch mechanism, motor and all other internal electrical elements of the actuator from ingress of moisture and dust when the terminal box cover is removed on site for cabling / maintenance. Actuators for explosion / hazardous application shall in addition be certified explosion proof of specified class group and division.

g) The actuators shall be operated from the control desk Local Control Station (LCS) shall be provided separately for local operation of the actuator for testing and maintenance purpose. Isolator along with starter for the actuator motor shall be located in the MMC. Separate power cable shall be used for motor wiring.

49 **ANNUNCIATORS:**

- a) Solid-state facia window type
- b) Facia window with white heat resistant plastic material, inscriptions engraved in block.
- c) Lighting unit with dual lamps in parallel.
- d) Plug-in-type facia window with lighting unit.
- e) Common hooters, ACCEPT push button, RESET push button and TEST push button.
- f) 20 % or as specified elsewhere spare annunciation windows fully wired and equipped shall be provided.
- g) Sequence:

On incidence of fault	:	Hooter ON, lamp flash
On pressing Accept button	:	Hooter OFF, lamp steady
On pressing Reset	:	Lamp OFF if fault is removed

Lamp remains ON if fault persists.

h) Following drawings shall be submitted:

Wiring and terminal diagram

List of Inscription

Make, technical details, catalogues, manuals, test specification etc,

Low and High pressure indicator, Auto Cut off, ON indication, for all pump, Jockey pump, Diesel Engine, MOV, Tower Monitor, Ground Monitor to be provided

50 **LOCAL CONTROL STATIONS (LCS):**

- a) It shall be flame proof, dust and vermin proof, wall mounting type with equipment mounted on a base plate inside, behind a hinged lockable front door.
- b) All components to be complete wired unto terminal block with at least 20% spare terminals and also provided with earthing terminals.
- c) The degree of Protection for enclosure shall be IP - 55 for indoor type and IPW - 56 for outdoor duty. All LCSS shall be with canopy irrespective of their locations.

- d) START PB shall be shrouded type & shall be of green colour with 1 NO + 1 NC contacts (minimum) or as per final circuit diagram
- e) STOP - PB shall be red color, must room headed lockable type. Press to lock and turn to release type.
- f) Inscription on corrosion resistant metal strips giving drive description, mechanism number and functional requirement.
- g) For non-reversible drive, 2 pin PB switch (START & STOP) in LCS shall be provided.
- h) For reversible drive, 3-pin PB switch (FOR-REV-STOP) in LCS shall be provided.

51 **JUNCTION BOXES:**

The junction boxes shall be dust and vermin proof and made of pressed sheet steel having minimum thickness of 3mm with rubber gasket at ail joints and openings. The JB will contain suitable type and number of terminals including 20% spare terminals for terminating cables. Junction box shall be flame proof and weather proof.

52 **POWER AND CONTROL CABLES:**

- a) For 415V / 440 V power supply services and motor feeder, space heating, outdoor lighting in the jetty and allied structures, the cables, power supply to LDB etc. shall be 1100 volt grade, multi core, standard Copper conductor (grade H4, class 2 as per IS:8130 of 1976), extruded PVC compound type A insulated, cores laid up, inner sheathed with gal vanished steel wire or strip armored for multi core cables outer sheathed with extruded FRLSPVC compound complying with IS: 1554-Part I of 1988 as amended up to date. For 3300V for motors feeder XLPE insulated PCP/CSP sheathed Aluminum cables shall conform to IEC 92 or relevant IS Standard as amended up to date.
- b) 1.1KV PVC, (FRLS) Copper Control Cables For control, protection, CT/PT connections, interlocks, metering, solenoids etc. control cables with the following specifications shall be provided. 1100 volt grade, multi core, stranded, annealed, high conductivity copper conductor (class 2 as per IS: 8130 of 1976), extruded PVC compound insulated, cores identified by numerals, cores laid up, inner sheathed with extruded FRLS PVC compound, armored with galvanized steel wire/strip and outer sheathed with extruded FPXS PVC compound complying with IS: 1544 Part I of 1988 as amended up to date.
- c) Design Criteria for cable sizing
 - i) The LT power cables shall be selected on the basis of current carrying capacity and permissible voltage drop.
 - ii) Minimum cable size for LT power cables shall be 6 sq. mm Copper. The minimum size of control and lighting wires shall be 2.5 sq. mm. Copper.
 - iii) Current carrying capacity.
- d) The cable shall carry the full load current of the circuit and rated full load current of the motor under the specified ambient temperature and other conditions of installations full load current of the circuit shall not exceed the 80% of rated current carrying capacity of the cable to be designed and selected

considering voltage drop within permissible limit of 5%. For this suitable de-rating factors for lying conditions as listed below shall be considered based on the manufacturer's recommendation.

- i. Ambient ground / Air temperature
- ii. Depth of laying and condition of laying
- iii. Grouping of Cables
- iv. Other applicable site requirements.

e) Short circuit rating:

- i) The cables for circuit breaker controlled feeders shall withstand the short circuit current for the specified time.
- ii) For circuits, which are protected by fuses, cables need not be sized to withstand the short circuit.

52.1 Permissible voltage dip/drop

The voltage drop in cables from main 440V switchgear to the connected 440V motor shall be limited of 5% at motor terminals. Further, the total voltage drop in cables from main 440V switchgear to MCC and from the MCC to the motor terminals and others consumers including lighting fittings shall be limited to 5%. Voltage dip during starting of any individual motor shall be limited to 15%. After the motor list is finalized by the successful tenderer, the size of power cables selected along with calculations shall be furnished by the tenderer during detailed engineering for HDC, KoPT's approval.

52.2 In multi-core control cables, the following minimum reserve core shall be kept.

- Up to 7 cores one reserve core.
- Up to 10 cores two reserve cores.
- Up to 24 cores three reserve cores.

52.3 Sequential length marking at every meter shall be provided in outer sheath of all cables (Power, control, Instrumentation). ISI marking at every meter of cable length shall be provided. Core of multi-core control cables shall be serially numbered at every 75m.

52.4 Cable Installation

(i) All cables irrespective of type of installation shall be protected by means of G.I. pipe (B class) or sheet metal protective cover up to a height of 2000 mm from the working floor level and platform for protection against mechanical damage.

(ii) Cable runs shall be uniformly spaced, properly supported and protected in an approved manner. All bends in run shall be well defined and made with due consideration to avoid sharp bending and kinking of cables. The bending radius of various types of Multi -core cables shall be as given below.

- a) 1.1 KV PVC & FRLS cables: 12 D

(ii) No joint shall normally be made at any intermediate point in through runs of cables unless the length of the run is more than the length of standard cable drum. In case where jointing is unavoidable the same shall be made, after the approval of HDC, KoPT, by means of Heat Shrinkable cable jointing kits.

(iv) Supporting brackets for trays shall be provided at an interval not exceeding 1500 mm. Vertical spacing between trays shall generally be 300 mm. Where there is a possibility of mechanical damage

cable trays shall be adequately protected by sheet steel covers. For future requirement, provision shall be made.

(v) All cables shall be provided with identification lags indicating cables numbers in accordance with cable/circuit schedule. Fags shall be fixed at both ends of cables, at joints, and at 20 m spacing for straight runs. When a cable passes through a wall, tags shall be fixed on both sides of the wall. The tags shall be of aluminum sheet (non-ferrous materials for single core cables) with number punched on them and securely attached to cables with non-corrosive wire.

(vi) Cable trays and fittings shall be fabricated out of 2mm sheet steel free from any flaws. Ladder type cable trays shall consist of side rails formed to channel shape and horizontal slotted ladder rungs with 250 mm spacing center. Standard length of all cable trays shall be 2500 mm. Perforated type cable trays shall be fabricated out of single sheet steel of 2.00 mm thick with perforation at the bottom.

(vii) All cable trays and their fittings shall be hot dip galvanized/ PVC in accordance with IS: 2644 - 1972. Galvanizing shall be uniform clean smooth, continuous and free from acid spots. Should galvanizing found defective, the entire batch shall be re-galvanized at the contractor's cost.

(viii) Size of ladder type cable trays shall be 600 mm W x 75 mm D and 450 mm W x 75 mm D. Size of perforated type cable trays shall be 300mm W x 75 mm D and 150 mm W x 50mm D.

(ix) Electrical load chart to be furnished.

53.5 Termination and Jointing of Cables:

i) Termination of Copper conductor power cables shall be by means of compression type lugs. Alternatively, tinned copper compression type lugs may also be used with application of corrosion insulating compound. Copper conductor control cables shall be terminated directly into screwed type terminals provided in the equipment. All LT Power cable jointing works are to be carried out by the contractor by means of Heat Shrinkable cable jointing kits.

ii) Straight through joints for 1.1kv grade PVC insulated cables shall be with epoxy resin compound. Cable glands for terminating PVC insulated cables shall be double compression type and made of tinned brass.

iii) G.A drawings of cables trays including installation drawings of cable trays and supporting structure shall be submitted by the successful tenderer.

iv) Cable supporting structure (vertical & horizontal member) shall be fabricated from M. S. angle of size 50 x 50 x 6 mm and shall be hot dip galvanized.

54 **EARTHINGS:**

i) Entire system shall be earthed in accordance with the provisions of the relevant IEC recommendation / IS code of practice IS: 3034 – 1987 and Indian Electricity Rules so that the values of the step and contact potentials in case of faults are kept within safe permissible limits.

ii) Parts of all electrical equipment and machinery (rated 415 V) not intended to be alive shall have two separate and distinct earth connections each to conform to the stipulation of the Indian Electricity Rules. Apparatus rated 240 V and below may have single earth connection.

iii) Pump house, jetty and buildings as well as the electrical sub-station and electrical rooms shall be provided with a ring main earthing systems each. Individual ring main earthing systems shall again be interconnected to KoPT's network.

iv) For the purpose of dimensioning the earthing lines /conductors, the duration of the earth fault current shall be taken as 0.3 seconds.

v) The minimum size of galvanized GI flat/strip / copper wire for earthing of various equipment shall be as follows:

LT system:

1. MCC, LT switch boards, power distribution boards fed from LT substation: 65mm x 8mm.
2. LT AC motors from 15 kW and below 45 kW: 25mm x 6mm.
3. Control Desk, cabinets, LDBS / SLDB Relay panel. : 25mm x 3mm.
4. LT AC motors from 3.75 kW up to 11 kW: 16 sq. mm stranded.
5. LT AC motors from 0.75 kW up to 2.2 kW, LCS Limit switches, JB. : 6 sq. mm Stranded.
6. Switch boxes, isolator, socket, Instruments and miscellaneous small items protected by fuse not exceeding 16 A: 6 sq. mm Stranded.
7. Isolator and socket outlet above 16 A up to and including 100 A: 50sq.mm Stranded.
8. Conductor size adopted for earthing ring shall in no case be less than that of the earth continuity conductors connected to it. The size of earthing leads connected to earth electrodes shall not be less than of earthing ring. Unless otherwise specified earthing ring for plant buildings shall not be less than 50 mm x 6mm.
9. For earthing of buildings columns, crane/mobile equipments, rail etc 50 x 6 mm galvanized MS that shall be used. Earth bus size shall not be less than 75 mm x 12 mm-galvanized MS flat.
10. Earth Leakage circuit breaker to be provided.
11. Separate earthing system shall be provided for the electronic equipment and system and associated power devices.

55. **LIGHTNING PROTECTION SYSTEM:**

All buildings and plant structures vulnerable to lightning strokes owing to their height or exposed situation shall be protected against atmospheric flashover and lightning strokes. Stipulations of IS : 2309 -1989 shall be followed.

Size of conductors for lightning protection shall be as follows:

1. Horizontal air termination rods : 40mm x 6mm GI flat
2. Vertical air termination rods : 45mm GI round bar, 1 m long
3. Down conductor above ground : 40 mm x 6mm GI flat

Horizontal air termination conductor shall be elected on the steel structure at suitable intervals. The down conductors shall be cleared at regular intervals.

Each down conductor shall be connected to rise through testing point. The height of the test point from ground shall not be more than 1.5 meter.

56. CONTROL PHILOSOPHY:

Each drive of motor shall have manual, remote and local controls. Manual starting of motors will be from pump-house. Remote control operation of equipment/mechanism shall be accomplished from control Desk. Local control shall be accomplished from dedicated local control station installed near the corresponding drive motor/mechanism. Local control shall be for maintenance and testing purpose only. Control selector switches for selection of manual, Remote & Local controls for each drive motor/mechanism shall be on control desk (located at control room).

57. FIRE HYDRANTS:

- i) The hydrant system is designed to cater to the single largest fire demand.
- ii) Pumping philosophy remains same, as indicated in Diesel driven engine sets.
- iii) Headers shall be laid above ground except at any crossings, where they will run through culverts or through concrete pipe sleeves.
- iv) At such locations, suitable corrosion protection as per IS10221 shall be provided.
- v) Hydrant and monitor posts shall be spaced at intervals of 30Meters / 45 meters throughout the length of the fire line as per OISD 156.
- vi) Each hydrant post shall be of the type suitable for the installation of two single headed hydrants.
- vii) Each water monitor shall have a gate valve immediately below it, as per standard practices.
- viii) Each hydrant shall be numbered from the pump house towards manifold.
- ix) Hose pipes and branch pipes with nozzles shall be provided in sizes and quantities as worked out by experts and kept in hose boxes, hose stations and fire station at OT II.
- x) Each equipment used in the system shall comply with TAC requirements in all respects.

Fire hydrant shall generally conform to IS: 5290. They are single and double headed hydrant and flow shall not less than 900 LPM @12 kg/cm² on each head. This shall be tested to 21 kg/cm² as per relevant BIS code. The ends shall be fixed with female couplings. Material of construction of hydrant valve branch pipes and coupling shall be SS: 316 of approved make. The Hydrants shall be situated at a Height of about 1.5M above the Ground level.

58. ORIFICE PLATE:

Suitable size of orifice plates of SS 316 construction shall be provided before the isolating vales of all hydrants. Jumbo curtain header and ground monitor in order to maintain line pressure to 7kg/cm².

59. HOSE PIPES AND HOSE CABINET:

The pipes shall be of fabric reinforced rubber lined woven jacketed for fire fighting purposes of approved make Hose pipes 63mm. Dia 15m and 7.5m lengths for double and single hydrant respectively tested to a bursting pressure of 37 kg/cm² and proofed by mystox treatment Manufactured as per BIS: 636 (Type 2) fitted with SS 316 size 63mm. Male and female hose couplings as per BIS: 903. Hose cabinet shall be suitable for housing 2 nos. 1 no. hose pipes of above length, branch pipe and nozzle as required 6mmMS sheet to be used for fabrication of hose cabinet. Hose cabinet shall be internally and externally painted with two coats of epoxy paint of fire red color with locking arrangement. The cabinet shall be located near to hydrant with steel supporting.

60. E.O.T CRANE:

E.O.T Crane of 05Tonnes capacity shall be supplied and installed with the following technical specification confirming to IS 807& IS3177

Capacity	:05 Tonnes
Quantity	: 1 No.
Girder construction	: Single Girder Duty/ Class : Medium / Indoor
Span	: 30Mtrs
Height of Lift	: 7.5 Mtrs

61. INTERNATIONAL SHORE CONNECTION:

One number International shore connection on OT II shall be provided with isolation valve on service platform wherever required.

62. INSPECTION OF PLANT, EQUIPMENT AND TESTING IN GENERAL:

Inspection of plant and equipment shall be carried out by HDC, KoPT, IRS or 3rd Party Agency at the works of successful tenderer (Contractor/ Sub Contractor) during manufacturing and on final product to ensure conformity of the same with the acceptable criteria of technical specifications, approved drawings, authenticated manufacturing drawings and reference national / international standards.

The Equipment/material will be accepted after the same are tested/inspected by the inspection agency and duly stamped before dispatch. All cost towards the charge of inspection Agency during the manufacture and testing at the Contractor works shall be borne by HDC, KoPT. The Port will associate Indian Register of Shipping during Fabrication, Erection, Testing and Commissioning of the system at site so as to ensure quality and workmanship according to the expected standards. The charges for this will be borne will by HDC, KoPT. The contractor shall submit the QAP for approval. Not with standing any such inspections the responsibility rests with the Contractor.

63. QUALITY SYSTEM REQUIREMENTS:

Contractor must recognize the importance of quality and follow defined quality programme in all manufacturing and quality control activities of the product. Contractor must define and implement the tasks and controls that will provide needed assurance in case manufacturing of product is sub-contracted either partly or fully and/or for the procured components of the product. All bought-out equipment or component shall be procured from preferred list of vendors enclose with this tendering specification or furnished to contractor by the project authority.

HDC, KoPT / IRS or 3rd Party Agency reserve the right to verify the quality program and entire product characteristics to assure the intended and specified quality of the product.

64. QUALITY ASSURANCE PLAN (QAP):

Contractor shall furnish Quality Assurance Plan (QAP) for respective equipment after completion of detailed engineering and finalization of billings, schedule / equipment. Identification number for their representative's approval at least three months prior to start of manufacturing. QAP to be approved by HDC, KoPT (Kolkata Port Trust). CPM- PERT to be provided by the tenderer prior to the commencement of the Project.

Contractor shall indicate procurement source and furnish to HDC, KoPT /their representative during discussions on QAP, copies of Purchase order (P.O), Sub-Purchase Order (Sub-P.O.), Technical Specifications (T.S.) approved GA drawings/data sheets and detailed manufacturing drawings, as backup reference materials for scrutiny and finalization of QAP.

Four sets of QAP shall be prepared & furnished to HDC, KoPT by-Contractor. Inspection and test requirements shall be decided with due consideration of factors like safety, duty cycle, operating conditions, equipment life, environment conditions, place of installation and statutory regulations as applicable, for a particular equipment.

Weld Inspection: visual and NDT as per design requirements. Radiographs are to be shown and report to be submitted to KoPT/their representative (IRS) for review during inspection, if applicable.

Witnessing by HDC, KoPT or 3rd Party Agency of other tests like pneumatic, hydraulic, no-load running, functional balancing, performance etc. depending upon criticality of the part item/equipment.

65. BOUGHT-OUT ITEMS:

Following standard bought-out items shall be accepted on the basis of manufacture's test certificate.

i) Electrical items

L.V. current transformers
Standard AC motors up to 5 KW rating
Push button station in manufacturer's standard enclosure
LT power and control cable
Starters in manufacturer's standards enclosure
Pressure Switches
Pressure gauges
Ceiling, pedestal & exhaust fans
Light fittings

ii) Mechanical items

Pipes up to 75mm Dia.
Insulation materials
Bolts, nuts & washers (Grade 4.6min.)

65.1 Electrical Equipment

Final inspection and testing equipment
Verification of test certificates
Visual and Workmanship
Dimensional

Witnessing of routine, tests as per relevant standards. Manufacture's test certificates for type test (except for AC motors) to be submitted for verification. Witnessing of proto - type tests, as applicable.

65.2 Instrumentation Final inspection & testing.

Verification of test Certificates
Workmanship and visual including physical checking of defects.
Dimensional Checking
Calibration of the instrument for specified parameters shall be checked.

66. OBLIGATIONS OF CONTRACTOR:

i) The Contractor shall provide all facilities and ensure full and free access of the Inspection Engineer of KoPT / their representative/IRS to the Contractor's or their Sub

ii) Contractor's premises at any time during contract period, to facilitate him to carry out inspection and testing of the product during or after manufacture of the same.

iii) The Contractor shall delegate a Representative /Coordinator to deal with KoPT/their representative on all inspection matters. Also Contractor's Representative shall be present during all inspection at Sub - Contractor's works.

iv) The Contractor / Sub - contractor shall provide all instruments, tools, necessary testing and other inspection facilities to Inspection Engineer free of cost for carrying out inspection.

V) The cost of testing welds by ultrasonic, radiographic and dye penetration tests etc. in the fabrication workshop shall be borne by the Contractor.

vi) The Contractor shall ensure that the equipment/assembly/component of the plant and equipment required to be inspected, are not dismantled or dispatched before inspection.

vii) The Contractor shall not offer equipment for inspection in painted condition unless otherwise agreed in writing by KoPT/their representative.

viii) The Contractor shall ensure that the equipment and materials once rejected by the Inspection Engineer are not reused in the manufacture of the plant and equipment. Where parts rejected by the Inspection Engineer have been rectified as per agreed procedures laid down in advance, such parts shall be segregated for separate inspection and approval, before being used in the work.

67. INSPECTION CERTIFICATE:

i) On satisfactory completion of final inspection and testing all accepted plant and equipment shall be stamped and the HDC, KoPT / IRS or 3rd Party Agency for the accepted items shall issue inspection certificate in standard format.

ii) The successful Tenderers inspecting authority shall have a close surveillance in respect of the quality of job for the design dimensions, tolerances, surface finish etc.

iii) The inspection shall be carried out as per the approved drawings and code. These shall be rejected in case of any deviations from the specification or approved drawings and codes.
The foam & other equipments pumps shall be dispatched to site only after getting dispatch instructions from the KoPT.

68. TESTING AT MANUFACTURER'S WORKS:

The following of tests shall be conducted at the Manufacturer's works:

68.1) Foam Pump/Jockey Pumps:

In addition to various routine tests, the pumps shall be subjected to the following tests.

- i) Pump assembly etc., shall be tested hydraulically up to twice the working pressure or 1.5 times the shut-off head of the foam pump.
- ii) The test pressure shall be maintained for minimum half an hour.
- iii) Foam pumps shall be operated at constant speed to establish full head capacity characteristics using water as the medium. A minimum of 5 points shall be covered to plot the curve.
- iv) Dynamic balancing test for rotating assembly.
- v) The Foam pumps shall be tested for vibration at the guarantee points. Vibrations in excess of 75 microns at each bearing housing and shaft shall not be accepted.

68.2) Diesel engine:

At manufacture's works, tests shall be carried out during and after completion of manufacture of different component parts and the assembly.

Following tests shall be conducted.

- i) Performance test of the diesel engine to determine its torque, power and specific fuel consumption as function of shaft speed. Performance test of the engine shall be carried for 12 hours out of which 11 hours at full load and one hour at 110% overload.
- ii) Functional checks and adjustment of speed governor
- iii) Over all mechanical and electrical inspection.

68.3) Valves / Motorized Valves:

The following tests shall be conducted at Manufacturer's works: -

- i) Body test: All valves when completely assembled shall be subject to the hydrostatic test at the appropriate test pressure as per relevant standards.
- ii) Seat test: After being subjected to the body test, valves shall show no leakage at the valve seat when subjected to the hydrostatic test at the appropriate test pressure as per relevant standards.
- iii) Performance test for electrically operated with respective actuators mounted in position to show valve opening and closing and observation of leakage.

68.4) MS / ERW Pipes:

These pipes are to be hydraulic tested at Manufacturer or at suppliers work, Necessary Physical / Chemical / Hydraulic testing as per IS Standard to be carried out.

68.5) Motors:

The following tests shall be carried out for the motors as detailed below.

- i) No Load test.
- ii) Reduced Voltage running test.
- iii) Locked rotor test.
- iv) Noise & Vibration test.
- v) Over Speed test at 155% for 15min.

69. PAINTING:

- i) Painting shall provide a continuous adherent film of adequate thickness on the surface being treated and protected from attack due to continuous exposure in industrial atmosphere prevailing at the site of erection of the equipment.
- ii) Paint shall be applied in accordance with manufacturer's recommendations as supplemented by this specification. The work shall generally follow IS: 1477 (Part II) - 1990.
- iii) Paint shall generally be applied by brushing, except the spraying may be used for finish coats only when brushing may damage the prime coats. Roller coats or any other method of paint application shall not be used unless specifically authorized. Spraying shall not be adopted on red lead or zinc rich paints. Daubers may be used only when no other method is practicable for proper application in difficult accessible areas.
- iv) Paint shall generally not be applied when the ambient temperature is 25°C and below. For paints which dry by chemical reaction, the temperature requirements specified by the manufacturer shall be met with also paint shall not be applied in rain, wind, fog, or at relative humidity of 80% and above or when the surface temperature is below dew point resulting in condensation of moisture. Any wet paint exposed to damaging weather condition shall be inspected after drying and the damaged area repainted after removal of the paint.
- v) Each coat of paint shall be continuous, free of pores and of even film thickness without thin spots. The film thickness shall not be so great as to affect detrimentally either the appearance or the service of the paint.
- vi) Each coat of paint shall be allowed to dry sufficiently before application of the next coat to avoid damage such as filling or loss of adhesion. Undercoats having glossy surface shall be roughened by mild sand papering to improve adhesion of subsequent coats. Successive coats of same color shall be tinted, whenever practical, to produce contrast and help identify the progress of work.

vii) The contractor shall furnish paint manufacturer's test reports, technical data sheet pertaining to the paint selected. The data sheet shall indicate among other things, the relevant standards, if any, composition in weight per unit of pigment vehicles, additives, drying time, viscosity, spreading rate, flash point, method of application, quality of surface preparation required, corrosion resistance properties and color.

viii) Painting at works

Equipment like pumps, motors, diesel engine, diesel storage tank, valves and fire hydrants shall be painted at works before dispatch but after the testing by proper surface as per relevant standard preparation, primer coats and finish coats as specified below.

ix) Surface preparation

All surfaces shall be cleaned of loose substances and foreign materials, such as dirt, dust, scale, oil, grease, welding flux etc. irrespective of whether the same has been spelt out in the standards in order that the prime coat is rigidly anchored to the virgin metal surface. The surface cleaning shall conform to pictorial representation of surface quality, grade Sa 2 1/2 of Swedish Standards Institution SIS 055900 or equivalent standards such as SSPC-VIS-1.67 or DIN 55928 (Part 4) or IS: 1477(Part-I) -1990.

x) Paint

The sand blasted surface should be painted with one coat of Zinc rich primer and two coats of epoxy paint of fire red color. The thickness of the Zinc-rich primer shall not be less than 40 micron and the thickness of each coat of epoxy paint of fire red color shall be not less than 100 microns. The total dry film thickness of the total painting shall be not less than 240 microns.

xi) The zinc rich primer paint shall have 92% zinc content. Both the zinc-rich primer and the epoxy paint shall be compatible and the paint shall be of reputed and approved makes. All over ground lines shall be sand blasted and epoxy painted whereas the underground lines shall be double coated and double wrapped.

xii) For electrical panel's necessary metal treatment like hot alkaline degreasing. Cold water rinsing followed by pickling coldwater rinsing, phosphating and passivation shall be carried out. The complete panel board shall then be dried out by the compressed air in dust free atmosphere. The boards shall then be epoxy powder coated to shade 623 of IS-5 over priming coats and finally baked.

xiii) Pipes and pipe fittings shall be given one coat of primer as mentioned in after testing and before dispatch to the site.

xiv) The complete pipe work after erection and testing shall be given one coat of primer, one coat of intermediate paint and two coats of final paint as per relevant standards.

xv) Color Code

a) The color code of the paint for Foam Pumps, Diesel engine and motors shall be quarter-gray conforming to shade No. 628 of IS:1991.

b) Pipelines & pipefitting and hydrants shall be fire red.

c) Water monitor shall be lemon yellow conforming to shade No.355 of IS: 1991.

70. ELECTRICAL STANDARDS:

- i) Lighting protection system as per IS 2309 (1989), wherever required.
- ii) All Earthing as per IS 3043 (1987), wherever required.
- iii) All bus bars as per E91E grade (Electrolyte Grade Aluminum Bus Bars) with heat shrinkable type of PVC sleeves and SMC bus bar supports.
- iv) All PDBS (Power Distribution Boards) shall be flame proof and weather proof enclosures.
- v) All power socket outlets should be of 230 V single phase 10 amps flame proof and water proof.
- vi) A welding power socket of 420 V to 500 V three phase, 3/5/6 amps flameproof and weather proof to be fitted in fire pump room.
- vii) IE rules and relevant IS standards to be applied throughout the work.

71. Documentation:

The Tenderer shall supply the following items:

- i) Foundation drawing for the Main engine, Foam pump, jockey pump,
- ii) All pipeline drawing with color code- 3 Sets.
- iii) All Valves drawing-3 sets.
- iv) All Foam system drawing-3 Sets.
- v) Inter connection pipeline drawing -3 Sets.
- vi) Performance curves of the pump – 3 Sets.
- vii) All electrical system drawing – 3 Sets.
- viii) All certificates for the Diesel Engines, Motors, Pumps motorized valves, other Valves all pipes, main electrical equipments foam system to be produced- 2 Original +2 Copies.
- ix) Engines, Pumps, Valves, Motors ,Manual – 3Sets.
- x) Spare Parts Manual – 3 Sets.
- xi) Test Report for materials, Engines/pumps for piping, Valves, Motors.
- xii) Performance Test Report for all engines pumps, motors, Jockey pumps,etc.,
- xiii) All tracings to be given
- xiv) Blue Prints-3 Copies
- xv) CD (all Drawings)-3 Nos.

xvi) PERT Chart-3 Nos.

xvii) Bar Chart-3 Nos.

72. IMPORTANT STANDARDS.

i) OISD STANDARDS – OISD 156

ii) API – AMERICAN PETROLEUM INSTITUTE,

iii) ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE.

iv) ASTM- AMERICAN SOCIETY OF TESTING & MATERIALS,

v) BIS – BUREAU OF INDIAN STANDARDS,

vi) BS- BRITISH STANDARDS,

vii) IEC - INTERNATIONAL ELECTRO TECHNICAL COMMISSION,

viii) IEEE- THE INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS

ix) NFPA- NATIONAL FIRE PROTECTION ASSOCIATION

x) NFPA 11a – STANDARD FOR MEDIUM & HIGH EXPANSION FOAMS.

xi) NFPA 13 – STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS

xii) NFPA 15 – STANDARD FOR INSTALLATION OF WATER SPRAY SYSTEMS.

xiii) NFPA 20 – STANDARD FOR INSTALLATION OF CENTRIFUGAL PUMPS.

xiv) TARIFF ADVISORY COMMITTEE – FIRE PROTECTION MANUAL.

xv) CCE – CHIEF CONTROLLER OF EXPLOSIVES

73. ACCESSORIES:

1) INTRINSICALLY SAFE JUNCTION BOX FOR WELDING GENERATOR IN PUMP HOUSE

2) BLOWERS, EXHAUST FANS IN PUMP HOUSE. - 2 Nos Each or as may be required on site considerations.

3) BINOCULARS- 2 Nos (one Table Mounted Type, one Low vision type).

4) VHF - WALKIE TALKIES- 6 Nos. (The Range of 5 KM and matching the frequency of the existing ones)

5) WIND SOCKS – 2 Nos.

6) BATTERY CHARGER – 1 No.

7) STARTING BATTERIES - 10 Nos.

8) PORTABLE EXPLOSIVE METER- 1 No.

9) Safety showers / Eye wash fountains to be installed at Strategic Locations.

ERECTION

74. General

i) The erection of all plant and equipment shall be carried out according to the latest engineering practice and according to the drawings, specification, instructions etc. duly approved by the HDC, KoPT / 3rd Party inspection agency. The contractor shall carry out the work in presence and/or as per the instructions of site engineer/supervisory personnel deputed by the KoPT. The erection shall be carried out with highly skilled workman.

ii) The contractor shall take care of positioning, leveling and plumbing of all pipelines and equipment as well as supporting structures within the required accuracy and tolerance limits. It shall be deemed as a contractual obligation that the lines are not thrown out of alignment or lifted off during commissioning and subsequent operation.

iii) There may be more than one contractor working in the area at the same time. As such, the work has to be carried out in proper co-ordination and consultation with the HDC, KoPT and all other parties concerned with the work. The tenderer shall take due notice of the working condition, practices and agreements current in the area of the plant site and satisfy himself before quoting.

iv) It will be contractor responsibility to take required precautions, actions to adequately safeguard the personnel carrying out the work and to ensure that the work is carried out in such a manner that maximum safety of men, machine material and environment is ensured.

v) The contractor shall comply with relevant rules and regulations on Safety, Health and environment, ILO regulations, Dock Safety requirements etc. The tenderer shall provide all personal protective equipment to workmen such as Helmet, Shoes, Suitable Gloves, masks, goggles, Safety Belts etc as applicable.

vi) A senior person of the contractor shall be responsible for SHE (safety, Health, Environment) requirements.

vii) The contractor shall be responsible for paying strict attention to statutory regulations for prevention of accidents and to other- safety rules. The regulations for prevention of accidents shall be displayed visible to all appropriate places and should be distinctly visible to all working personnel in area. Notices of warning sign and symbols shall draw attention to all possible sources of danger.

viii) In case of any accidents, shall inform to HDC, KoPT, CISF, Safety Officer and Police. All Welding may be carried out with proper safety precautions and with the Prior approval of Fire officer and Dock In-charge.

ix) Housekeeping should also be given priority and it must be on a day to day basis.

x) The contractor shall supply all required consumables, construction and erection materials, diesel oil, kerosene, solvents, sealing compound, tapes, brazing gases, erection bolts, nuts and packing sheets/compounds temporary supports, wooden blocks, spacers, templates, jute and cotton wastes, sand paper, etc. as required for the satisfactory completion of work.

xi) Throughout the performance of work the contractor shall at his own cost keep structures, materials or equipment adequately braced by guys, struts, or other approved means which shall be supplied and installed by the contractor as required till the installation work is satisfactorily completed. Such guys, shorting, branching, strutting, planking, supports etc. Shall not interfere with the works under execution/executed by other agencies.

xii) The Tenderer shall be responsible for successfully erecting and commissioning of the plant and equipment supplied by him.

xiii) The scope of work shall cover storage at site transportation, fabrication/assembly, laying/erection, testing, painting and commissioning of the Fire Fighting water system and the connected piping system as a whole (inclusive of valves and other auxiliary equipment) with necessary supports and supporting structures. The erection work shall be carried out as per the working drawings prepared by the contractor and duly approved by the HDC, KoPT / 3rd Party inspection agent.

75. SITE TESTING & PAINTING

75.1 General

After erection at site the plant and equipment shall be subjected to tests to prove satisfactory performance as individual equipment and also as a system on the whole. The Tenderer shall include and conduct field tests for all pumps and piping systems. These tests shall be made after installation is completed and before the systems are placed in service. Field tests covered by BIS and Government and local codes shall govern in so far as they exceed corresponding requirements of this specification or cover omissions therein. All tests shall be performed as specified in the presence of the HDC, KoPT / 3rd Party inspection agent must be accepted by him. The Tenderer shall conduct a preliminary test and repair or correct all faulty work before calling the HDC, KoPT / 3rd Party inspection agent to the test for acceptance of the systems materials, tools, consumables, fuel, stores, apparatus and instruments as may be necessary to carry out such tests efficiently. Disposal of testing media must be done with full consideration to flooding or damage to the piping, other installations or property of the HDC, KoPT and safety of the personnel. The method of disposal shall be approved by the HDC, KoPT / 3rd Party inspection agent. The tenderer shall be liable for any damages resulting from field tests.

75.2 Pipelines.

a) Erected pipelines together with fittings shall be tested by hydraulic pressure. The value of test pressure shall be equal to 1.5 times the working pressure or 20 kg/cm² whichever is higher for duration of 4 hrs.

b) The Foam Pumps and monitors shall be disconnected before the test Combined tests of equipment with the pipeline is not allowed.

c) Hydrostatic tests shall be conducted for each system of piping separately.

d) Air vents shall be provided at all high points of the piping where the test shall be conducted in order to purge air pockets while the piping system is being filled up. Hydraulic test pressure shall be maintained for duration of 4 hrs. At this pressure the pipelines shall be inspected and all welded joints shall be tapped by a hand hammer.

e) Hydraulic test will be considered satisfactory if during the tests, manometric pressure does not decrease and no leakage or mist is found in the joints fittings etc.

f) The tenderer shall arrange at his own expenses all equipment, material, instruments and consumables to conduct the various site tests to demonstrate specified performance of all plant and equipment offered by the Contractor.

g) Representatives of the HDC, KoPT / 3rd Party inspection agent and the Contractor, Officials shall make a statement regarding the acceptance of the erected pipelines mentioning defects found during the tests, characteristics of the defects and the method of their elimination.

75.3 Painting

i) After testing, the pipelines, valves, fittings, supporting structures and pipe supports shall be painted as per the painting procedure indicated.

ii) On all equipment shipped from the works with Trust approved primer, one coat of intermediate paint followed by two coats of final paint shall be applied at site. All Pipelines to be fully painted as per specification.

iii) Any damage to the painting suffered during transit/erection for the already painted equipment shall be made good by the Contractor free of cost before the equipment is finally accepted by the HDC, KoPT / 3rd Party inspection agent.

75.4 COMMISSIONING

i) Before start of preparation for commissioning, all the equipment and pipelines shall be certified by the HDC, KoPT / 3rd Party inspection agent for commissioning.

ii) The site shall be thoroughly cleaned of all sorts of foreign materials such as welding rod ends, welding beads, metal chips etc by the Contractor from the site before commencement of commissioning activities.

iii) Before commissioning all the pipelines shall be blown with compressed air until the air discharged is free from dust particles etc.

iv) All lubricants, oils and other consumables required for commissioning the system shall be supplied by the Contractor.

v) Commissioning of the various equipment and system shall be carried out by the Contractor as per the accepted procedure and as per the instructions of the Suppliers of the equipment.

vi) On completion of the installation but before energisation of the electrical system, all installation shall be physically checked and properly tested. These checks and tests shall be conducted by the Tenderer under the supervision of the HDC, KoPT / 3rd Party inspection agent. Any defect observed

during such checks and tests shall be made good by the contractor before commencement of commissioning.

SAFETY, COMMUNICATION & SURVEILLANCE SYSTEM FOR OIL FLAME DETECTION / MATERIAL OF CONSTRUCTION & SPECIFICATION.

76. General

- i) This system shall be a “conventional type” manual call point system.
- ii) It shall cover the various areas of hazards, as indicated in the specification drawings in the form of zones.
- iii) A Main Fire Alarm Panel (MFAP) located at each of the fire station at OT II shall receive signals from all the call points.
- iv) The panel shall be capable of monitoring all circuits for fire alarms and open and short faults, Cut Outs as applicable.
- v) The fire alarm portion of the panel must indicate the various zones as a mimic display.
- vi) A fire siren shall be connected to the fire alarm panel. Its shall have a 5 nautical miles range of audible operation and will be located on the top of the fire station or at any suitable location, well clear of all obstructions.
- vii) Fire alarm panel shall be supplied with electrical power from the emergency captive power system as well as main power supply. However, a battery backup facility shall be kept to keep the system operative in the event of the failure of either of the two sources.
- viii) MFAP shall repeat relevant signals from all the repeater panels located elsewhere.
- ix) All call points shall be dust proof, weather proof and explosion proof.
- x) Panels should be vermin proof.
- xi) All electrical equipment used at OT II shall be electrically safe and shall have enclosure as per IP 65 and intrinsically safe.
- xii) All these equipments shall be suitably painted to protect them from sea water environment.
- xiii) Use of high grade epoxy based paints is advisable.
- xiv) Repeater panels shall be located at fire water pump house, port power house and fire stations at OT II.
- xv) All instrument control / electrical cables shall be fire resistant type complying with specification 4113-ELS-003.

77. Flame Detection System

The flame detector shall be combination of ultra-violet and infrared radiation type and shall be able to response instantaneous level of radiation received. A flame detector shall be located at specific point such as unloading arms discharge end, piping manifolds and valves in the jetty area for Oil Jetty II to detect ultra violet and infra-red radiation emitted due to flames.

The location of flame detectors shall also be such that their line of sight is not impede by structural members or any other opaque objects or materials and shall be as close to the source of fire as possible so as to detect fire quickly.

The system will be linked to control room where audio visual signal will be provided if flame is detected in jetty area.

Flame detectors are required to be installed in OT II at jetty side with a control module in control room.

Addressable Microprocessor Controlled UV / IR Flame Detectors compatible with the Main Fire Alarm Panel and approved by FM. The Detector and the Controller shall be housed in a single Explosion Proof Enclosure. It should have sensitivity so that it will respond to 1 Sq. Ft. of Gasoline Fire at 50 Ft. It should have 0.5 or 3 second selectable Response Time settings.

78. GAS DETECTION SYSTEM.

A gas detection system shall be provided to give warning of the presence of flammable gases or vapor in air, well before they reach explosive concentrations. Suitable sensors shall be installed at critical places such as unloading area / valve manifold area in the jetty head to continuously monitor the flammable gas concentration at strategic locations and the same shall be linked to the control room for audio visual alarm in addition continuous detection.

The sensors shall sense the concentration and indicate the level in the control room by suitable audio / visual warning when gas concentrations exceed predetermined levels.

79. PUBLIC ADDRESS STSYTEM

A Public address system linking various functional locations on the jetty area shall be provided. The loud speakers shall be located on strategic locations, pump house service platform, restroom etc. The announcing facility shall be located in the control room. All the electrical/ electronic components shall be flame proof and intrinsically safe. Outdoor equipment / components must be weather proof.

CONTROL PANEL FOR OT-II

80. SCOPE OF WORK:

The scope of work shall include Design, Supply, Installation and Testing of intrinsically safe electrical system for remote operation to tower foam / water monitor /pump sets / valves /foam skid / Ground Monitors / Jumbo Curtain Nozzles / High velocity manifolds / medium velocity dolphins / 4 Fans / 2 nos. Clean View Screen (heavy Duty) and other equipment installed at Pump House with complete remote control panel with joystick controls including control cable, power cable with laying work as per standard. All the operating START / STOP switch with annuciators shall be installed on Control Desk.

Control room for Oil Jetty II shall be constructed on the top of Pump House. The entire Control shall be provided with air conditioning equipment. The glass panels shall be shatter proof tilted type. The control room shall have emergency power fed by DG. The main / local fire alarm control panel and loop devices including sensors, interface & relay units Addressable UV/IR Flame Detectors should be sourced from the same ISO 9001 certified manufacturer to ensure perfect compatibility between hardware and software.

All basic equipment's proposed and planned for use shall be formally approved by any National / International authorities. At least one internationally recognized testing labs and/or approval from all the concerned authority for the system offered, few of which are listed below:-

UL - Underwriters, Laboratories USA
FM - Factory Mutual USA
BS - British Standards Great Britain
U.L.C - Underwriters Laboratories, Canada.

All control equipments and loop devices, interface modules, relay units, UV / IR Flame Detectors, etc. are to be manufactured by a single company to ensure total compatibility and fault less communication of the FAS.

The system shall be capable of connection of signal devices (hooters, horns, flash light etc) & Monitor Devices (sensors, MCP' set) in the same loop irrespective of difference in the principle of operation and should not require separate loop. This would reduce the no. of cards installed in the system and thus maintenance would be easy.

UV/IR Combined Flame Detectors shall be used in Jetty area where actual loading and unloading of material takes place.

The system shall be one of the latest generations of INTELLIGENT ANALOG SYSTEMS whereby it shall be the FIREALARM PANEL that determines that a fire situation really exists and not the device in alarm. This should be possible so as to eliminate the false alarms.

The system should have the optional facility to be connected into a Network in future, by adding the required cards, and thus operate as a Node of that Network while maintaining its Local Mode operation.

81. Monitoring and Control Equipment:

Standard Features

The Fire Alarm Control Panel should be manufactured by a ISO 9000 company and be UL listed for NFPA 71, 72, UL 1076 Security operation or similar and approval by FM or a similar laboratory in addition to approvals from local authorities.

This should be capable of optional 100% Hot redundant operation with identical other panel or 100% Redundant operation with standby processor.

To provide maximum efficiency in performing primary fire alarm functions, the main operator panel should give access only to the indication and interaction keys required in Emergency situation. For increased functionality operator should need to open "Access Door" to access the additional operator keys.

The depth of the Operators interaction with the control pane should be protected by at least 4 software programmable Access Levels so that specific functions may be allowed only to designated persons. It should be capable of assigning min 20 discrete passwords to identify-individual operator. The user specific code shall be stored in the on line history log to identify responsible for activating the function.

The main panel shall have a 2 x 40 character Backlit Super Twist Alpha Numeric LCD screen, which may be visible under any lighting condition. Vacuum fluorescent displays, which may consume high levels of current and arc not readily visible in high ambient light conditions, shall not be used. At least 40 character of the LCD display-shall be available for customer text to describe the location of a Zone or device.

Each loop must be able to support minimum 125 addressable inputs and/or output devices in any combination.

The memory of the panel shall be non-volatile. Systems requiring a power source for maintaining site-programmed data are not recommended.

The system shall have self-contained (internal) standby battery as a part of the Intelligent power supply with automatic charger. The charger must be capable of automatically adjusting the Boost or trickle charger according to the requirement of the Battery. The charger must be able to charge the requisite battery to support the system for 24 hrs. Normal condition and 10 minutes in alarm condition. There should be complete supervision of the power supply from main panel. The LCD on the main panel shall be capable of displaying all the information about the current status of the Power supply, Battery and charger (low / no battery, Battery) voltage, peak current, Battery current etc.)

The control panel must be fully field configurable, programmable and editable and should perform programmable function like changing circuit labels, selective signaling, coding, selective relay control, priorities, cross zoning, 2 - stage alarm etc.

The control panel shall allow for cross zoning or looping of sensors i.e. a detector on any loop may be assigned to any zone. This will prevent the need for excessive wiring.

The control panel shall have the facility of field selectable alarm verification by zone, by group of zones, or by system.

The control panel should contain a non-volatile Historical Event Log with a minimum of 600 events ready for display or printing. Only printing is not acceptable substitute for Display.

Trouble events (300) and alarm events (300) should be stored in separate Log for easy diagnostics.

It shall be possible to program a day/night facility with programmable alarm delay to reduce the unnecessary evacuation of the building during working hours.

Main Panel shall have features like:

- i) Field selectable signal silence inhibit
- ii) Software based field programmable (per circuit) selective zoned PNIS coded, temporal coded, March time coded or master coded operation

iii) Alarm / trouble resound

iv) Supervised serial annunciation connection.

V) Built-in-alarm verification tally for alarm verification zones.

vi) Optional remote serial (two-wire) alarm and trouble annunciation with optional acknowledge and reset switch, trouble light and trouble signal silence switch.

vii) A Safety alarm and Safety Cutout for low pressure 6.5Kg/cm² and high pressure 16.5 Kg/cm². Indicator for Valve closing, Jockey pump operation, Fault, System Stopped for Tower monitor, Ground Monitor, Jumbo Curtain nozzles, all motorized valves, High Velocity spray system, Manifolds, Interconnection failure for other systems shall be provided in control room and also local control for the above items are to be provided. Indicator for High Voltage, High Load, Low Voltage, Low Frequency. Foam Tank Level Indicator. Safety Alarm for D.E.

82. Remote Control System:

Remote control joy stick is required to be provided for rotation of foam/ water monitors in horizontal and vertical planes. The rotation of monitors is to be controlled from control room. The remote control system shall be operated electrically and should be compatible with the monitor offered. The Equipment used for remote control system, shall be explosion proof and the wiring shall be by the heat resistant cables. The essence of the working of the monitors depends upon the reliability of this system. Therefore, the latest practices to increase its reliability must be adopted. The remote control system should also control the electrically operated valves in the tower monitors lines and the hydrant/water curtain. The foam injection system also should be controlled by this system. The interconnecting cables between the control panel and motorized valves at the jetty area shall be fire survival type.

The electric remote control panel in the control room shall have the necessary controls for the following operations. The controls provided on the remote control desk shall be as below.

1. Auto/ Manual selection of monitor, hydrant & Jockey pumps.
2. Manual start / Stop of all pump sets including foam pumps
3. Joystick control of Tower/ Base water monitors
4. Manual start / Stop of all electrical operated valves.
5. Fog to jet control of all monitors
6. Master selector switch for local or remote start for all pumps
7. ON/OFF for all pumps sets
8. OPEN/CLOSE for all electrical operated valves
9. Position of all monitors
10. Pressure in monitors & Hydrants mains.

A mimic diagram shall be provided on the control desk. All electrical Equip. / Accessories used in control panel shall be flame proof and suitable for use in zone I, Group II hazardous areas as per I.S:2148. The entire electrical system shall be totally waterproof so that during fire operation no short circuit can develop.

83. TEST CERTIFICATES AND DOCUMENTS.

For each of the items being manufactured, following test certificates and documents as applicable for each of the equipment, in requisite copies including original shall be submitted to purchaser / their representative. All test certificate must be endorsed by the Manufacturer and Contractor with linkage to project, purchase order and acceptance criteria.

- i) Raw materials identification and physical and chemical test certificates for all materials used in manufacture of the equipment (except IS 2062 - 1992 Gr. A & IS 210 - 1993, FG – 150)
- ii) Welding procedures and welders qualification test certificates by as per applicable code.
- iii) Details of stage wise inspection and certification record for fabricated items, castings, forgings and machined articles.
- iv) Control dimension chart with records of alignments, scariness etc.
- v) Manufactures material and performance / relevant test certificates for all bought-out items.
- vi) Details of heat-treatment and stress relieving charts as per specification.
- vii) Non-Destructive Test reports as per respective code.
- viii) Static / dynamic balancing certificate for rotating components/machines.
- ix) Hardness test certificate,
- x) Pressure Test Certificate.
- xi) Performance Test Certificate for all characteristics.
- xii) Geometric accuracy and repeatability test reports of machine tools.
- xiii) Routine / type / calibration / acceptance / special test certificates for electrical items.
- xiv) Diagnostic features of NC/CNC system and test certificates for electrical items.
- xv) Surface preparation and painting certificates.
- xvi) Certificates from competent authority for the items coming under statutory regulations.

Where physical and chemical test certificates of material are not available, the contractor / Sub-contractor shall arrange to have specimens and test samples of the materials, tested in its own laboratory at his cost and submit the copies of test results in requisite numbers to purchasers / their representative for scrutiny & approval. Number to test samples against each heat / cast / lot or batch of materials shall be as per relevant Indian or international standards.

Where facilities for testing do not exists in the contractor/ subcontractors laboratories or in case of any dispute, sample & test piece shall be drawn by the contractor / subcontractor in presence of purchaser their representative & sealed sample shall be sent to any approved laboratory for necessary tests at contractor / subcontractors cost.

The purchaser / their representative shall have the right to be present & witness all tests being carried out by the contractor /subcontractor at their own approved laboratories. Also, the purchaser / their representative shall preserve the right to call for confirmatory test on samples, at his discretion.

Valid calibration certificate of all measuring instruments & gauges used during inspection & testing with tractability to national, standard of NPL / NPL accredited testing laboratories shall be furnished along with "inspection call" prior to undertaking inspection' by purchaser / their representative.

84. Indian Standards

IS 636: 1988Non-percolating flexible fire fighting delivery hose

IS 884: 1985Specification for first-aid hose reel for firefighting

IS 901: 1988Specification for couplings, double male and double female, instantaneous pattern for firefighting

IS 902: 1992Specification for suction hose couplings for firefighting purposes

IS 903 : 1993Specification for fire hose delivery couplings, branch pipe, nozzles and nozzle spanner

IS 904 : 1983Specification for 2-way and 3-way suction collecting heads for fire fighting purposes

IS 906 : 1988Specification for revolving branch pipe for firefighting

IS 907 : 1984Specification for suction strainers, cylindrical type for fire fighting purposes

IS 908 : 1975 Specification for Fire Hydrant, Stand Post Type

IS 909 : 1992Specification for underground fire hydrant, sluice valve type

IS 940 : 2003Portable Fire Extinguisher, Water Type (Gas Cartridge) – Specification

IS 952 : 1986 Specification for Fog nozzle for Fire Brigade Use

IS 955 : 1980Functional Requirements for Dry Powder Tender for Fire Brigade Use

IS 1641 : 1988Code of practice for fire safety of buildings(general): General principles of fire grading and classification

IS 1642 : 1989Code of practice for fire safety of buildings(general): Details of construction

IS 1643 : 1988Code of practice for fire safety of buildings(general): Exposure hazard

IS 1644 : 1988Code of practice for fire safety of buildings(general): Exit requirements and personal hazard

IS 1646 : 1997Code of practice for fire safety of buildings(general): Electrical installations

IS 2171 : 1999Specification for portable fire extinguishers, dry powder (cartridge type)

IS 2175 : 1988 Specification for heat sensitive fire detectors for use in automatic fire alarm system

IS 2189 : 1999 Selection, Installation and Maintenance of Automatic Fire Detection and Alarm System Code of Practice.

IS 2190 : 1992 Selection, Installation and Maintenance of First-aid Fire Extinguishers - Code of Practice

IS 2696 : 1974 Functional Requirements for 125-1/min Light Fire Engine

IS 2871 : 1983 Specification for branch pipe, universal for firefighting purposes

IS 2878 : 2004 Fire Extinguisher, Carbon Dioxide Type (Portable and Trolley Mounted) – Specification

IS 4308 : 2003 Dry Chemical Powder for Fighting B and C Class Fires – Specification

IS 4355 : 1977 Specification for Fire-resistant Brattice Cloth

IS 4989 : Part 2: 1984 Specification for Foam Concentrate for Producing Mechanical Foam for Fire Fighting -Part 2 : Aqueous Film Forming Foam (AFFF)

IS 4989 : Part 3: 1987 Specification for foam concentrate (compound) for producing foam for fire fighting: Part 3 Fluoro protein foam

IS 4989 : Part 4: 2003 Multipurpose Aqueous Film Forming Foam Liquid Concentrate for Extinguishing Hydrocarbon and Polar Solvent Fires – Specification

IS 5714 : 1981 Specification for Hydrant Stand-Pipe for Fire Fighting

IS 6234 : 2003 Portable Fire Extinguishers Water Type (Stored Pressure) – Specification

IS 7673 : 2004 Fire Fighting Equipment - Glossary of Terms

IS 8090 : 1976 Specification for Couplings, Branch Pipe, Nozzle Used in Hose Reel Tubing for Fire Fighting

IS 8442 : 1977 Functional requirements for stand post type water monitor for fire fighting

IS 9668 : 1990 Code of practice for provision and maintenance of water supplies and fire fighting

IS 9972 : 2002 Specification for Automatic Sprinkler Heads for Fire Protection Service

IS 9995 : 1981 Specification for visor for non-metal police and firemen's helmets

IS 10204 : 2001 Specification for portable fire extinguisher mechanical foam type

IS 10658 : 1999 Specification for Higher Capacity Dry Powder Fire Extinguisher (Trolley Mounted)

IS 10810 : Part 62 : 1993 Methods of test for cables: Part 62 Fire resistance test for bunched cables

IS 11070 : 1984 Specification for bromo-chlorodifluoro-methane (halon-1211) for fire fighting

IS 11101 : 1984 Specification for Extended Branch Pipe for Fire Brigade Use

IS 11108: 1984 Specification for Portable Fire Extinguishers -Halon 1211 Type

IS 11360: 1985 Specification for smoke detectors for use in automatic electrical fire alarm system

IS 12349: 1988 Fire protection-safety signs

IS 12469: 1988 Specification for Pumps for Fire Fighting System

IS 13849: 1993 Specification for portable fire extinguisher dry powder type (constant pressure)

IS 14609: 1999 Dry Chemical Powder for Fighting A,B,C, Class Fires – Specification

IS 15105: 2002 Design and Installation of Fixed Automatic Sprinkler Fire Extinguishing Systems - Code of Practice

IS 15301: 2003 Installation and Maintenance of Fire Fighting Pumps - Code of Practice

IS 15381: 2003 Fire Blanket – Specification

IS 15394: 2003 Fire Safety in Petroleum Refineries and Fertilizer Plants - Code of Practice

IS 15397: 2003 Portable Fire Extinguisher Mechanical Foam Type (Stored Pressure) – Specification

IS 7181:1986 Cast iron pipes horizontally cast double flanged type

IS 1536:1989 CI pipes centrifugally cast spun

IS 1538: Cast Iron Fittings

IS 1239 Mild Steel

IS 3589:91 MS Seamless or electrically welded steel pipes for water, gas, sewage.

IS 1239 Part 1, Part 2 MS Fittings

IS 10221:1982 Coating & wrapping of underground MS pipelines.

IS 780:1984 Specification for sluice valves for water work purposes (50 to 300 mm size)

IS 2906:1984: Specification for sluice valves for water work purposes

IS 5312:1984 Part 1 NRV Swing check type reflux non- return valve

IS 13095 Butterfly valves

BS 5150 CI Gate valves rising stem

BS 1414 Steel wedge gate valves

BS 5153 CI Reflux Valves/ Check valves (swing Type) PN 16

BS 1868 Steel Check Valves.

ABBREVIATIONS

ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
API	AMERICAN PETROLEUM INSTITUTE
ASTM	AMERICAN SOCIETY OF TESTING & MATERIALS
OT II	OIL TERMINAL II
NRV	NON RETURN VALVE
IRS	INDIAN REGISTER FOR SHIPPING
BIS	BUREAU OF INDIAN STANDARDS
BS	BRITISH STANDARDS
CCE	CHIEF CONTROLLER OF EXPLOSIVES, NAGPUR
FM	FACTORY MUTUALS
FRLS	FIRE RETARDANT LOW SMOKE
GPM	GALLONS PER MINUTE
IEC	INTERNATIONAL ELECTRO TECHNICAL COMMISSION
IEEE	THE INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS
ISO	INTERNATIONAL ORGANISATION FOR STANDARDS
MOEF	MINISTRY OF ENVIRONMENT & FORESTS, GOVERNMENT OF INDIA
MOV	MOTOR OPERATED VALVE
ROV	REMOTE OPERATED VALVE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OISD	OIL INDUSTRY SAFETY DIRECTORATE
TAC	TARIFF ADVISORY COMMITTEE
UL	UNDERWRITERS LABORATORIES, USA
ULC	UNDERWRITERS LABORATORIES, CANADA

LIST OF VENDORS

MECHANICAL

Sl. No.	ITEMS	NAME OF MANUFACTURERS
1	Pumps	KIRLOSKAR, MATHER & PLATT, FAIR blanks EMI, BECON WEIR, VOLTAS, TUSHACO or any imported make with external bearing provided with certificate from any classification society.
2	Foam/ diesel filling pump	KSB, ROTOPUMP, TUSHACO, KISHOR
3	Diesel engine.	RUSTON, CUMMINS, MAN, CATERPILLER /KIRLOSKAR OIL ENGINE
4	Foam/water monitor remote operated and foam proportionater	STANG/ANGUS/SYLVAN/ANSUL/SKUM/ ACRON BRASS (U.S.A) NEW AGE, VIMAL
5	Hydrant valve	NEWAGE, VENUS, SHAH BOGILAI, SUKAN.
6	Hose Pipe	CRL, JAYASREE, NEWAGE
7	Pipe	TATA, INDUS, SAW, SAIL, WELSPUN, ROSHNI, GSL, MUKUND, ZINDA, ISMT, MAHARASHTRA, SEAMLESS LTD.
8	SS Pipe	CHOKSHI, SWASTIK
9	Butterfly Valve	INTERVALVE, L&T, FOURESSVALVES, KEYSTONE.
10	Ball valve	L&T, CRESCENT, KEYSTONE, STEEL STRONG VALVES
11	Globe / Gate valve	TYCO, SANMAR, BDK, AUDCO-INDIA
12	Motorized valve	TYCO, SANMAR, BDK, AUDCO-INDIA, ROTORK
13	Non Return Valve	L&T, CRESCENT, UPADHYA, KEYSTONE
14	Fire extinguisher	MINIMAX, VIJAY, ZENITH FIRE SERVICES
15	Pressure gauge manometer.	AN, H-GURU, FIBEG, GENERAL INSTRUMENTAL
16	Jumbo curtain nozzle	HD Fire/FIRETECH
17	Strainer	GREAVES, JAYPEE, GRANDPIX
18	AFFF	UL/FM APPROVED. (FOAM CONCENTRATE)
19	Foam water monitor (ground monitor)	DH FIRE PROTECTION/ NEWAGE

LIST OF VENDORS

ELECTRICAL

Sl. No.	ITEMS	NAME OF MANUFACTURERS
1	Motors	BHEL/KIRLOSKAR/CROMPTON/ SIEMENS/ABB/JYOTI/MARATHON ELECTRIC.
2	Control panels	L&T/ KIRLOSKAR/ JYOTI/ SIEMENS/ BHEL/HPL
3	HT starter panel	CROMPTON (LT) ELPAN/ AMPTECH/ ZETA/BCH/HPL.
4	Gas & Flame	BW-TECHNOLOGIES/ SIMPLEX SYSTEM SENSOR/ PENTEX/CROWCON/ SYS
5	Pressure Switches	INDOFOSS/ VERMATRAFAG/ SWITZER.
6	LT Control Cables(FRLS) & LT Power Cables (FRLS)	CCI/FORTGLOSTER / HAVELLS/ POLYCAB/ NICCO/UNIVESAL/GEMSCAB/FINOLEX
7	Electric Actuator	BECON/ ROTORQ/ ANTRIEB/ LIMITORQUE
8	Alternator	CROMPTON GREAVES/KIRLOSKAR/STANFORD.
9	PA System	PHILIPS/BOSS
10	VHF System	PHILIPS/MOTOROLA

SECTION VII

GENERAL CONDITIONS OF CONTRACT (GCC)

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General Conditions of Contract (GCC)

A. GENERAL PROVISIONS

7.1 Definitions

In the conditions of contract ("these conditions"), which includes particular conditions and these general conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

7.1.1 The Contract:

- a) **"Contract"** means and includes these **bidding documents** in entirety (**including** all Addenda and Corrigenda, if any), the **specification**, the **drawings**, the **PRICE SCHEDULE**, the **bid / offer**, the **Letter Of Acceptance**, the **Contract Agreement** (when Contract Agreement would be completed in all respect) and such further documents as may be expressly incorporated in the **Letter Of Acceptance** or **Contract Agreement** (when Contract Agreement would be completed in all respect).
- b) **"Contract Agreement"** means the executed Contract Agreement referred to in **ITB Clause No. 5.37 [Signing of Contract Agreement]**.
- c) **"Contract documents"** means the documents listed in the Contract Agreement, including any amendments thereto.
- d) **"Letter Of Acceptance (LOA)"** or **"Work order"** or **"Order letter"** means the formal acceptance of the bid (and placement of order with the successful bidder), issued by or on behalf of the Employer, including any adjustments or variation to the bid agreed between the Employer and the successful bidder and includes its enclosure(s), annexure(s), etc., if any.
- e) **"Specification"** means the specification of the work included in the contract and any modification thereof or addition thereto made

under **GCC Clause No. 7.12 [Additions and alterations]** or submitted by the Contractor and approved by the Engineer, in writing.

- f) **“Drawings”** means **all drawings, calculations and technical information**, etc., provided by the Engineer to the Contractor under the contract and all **drawings, calculations, samples, patterns, models**, etc., including modification, if any, and other **technical information & manuals** of a like nature, submitted by the Contractor and approved by the Engineer.
- g) **“Tender”** or **“Bid”** means the proposal (priced offer), along with all supporting documents, submitted by the bidder to the Employer for consideration.
- h) **“Price Schedule”** means the priced schedule of items, forming part of the bid.
- i) **“Tenderer”** or **“Bidder”** means the individual firm, who submits the bid, duly filled up and signed, along with all the required documents and payment instruments, in strict compliance of the conditions / requirements stipulated in these bidding documents.
- j) **“Contract data”** means the pages completed by the Employer entitled **CONTRACT DATA**.

7.1.2 Parties and persons :

- a) **“Party”** means the **Employer** or the **Contractor**, as the context requires.
- b) **“Employer”** or **“Board”** or **“Trustees”** or **“Kolkata Port Trust”** or **“KoPT”** means the Board of Trustees for the Port of Kolkata (Calcutta), a body corporate under **Section 3 of the Major Port Trusts Act, 1963** (as amended from time to time), including their successors, representatives and assigns.
- c) **“Contractor”** or **“Successful bidder”** or **“Successful tenderer”** means the person or persons, firm or company, whose bid / offer has been accepted by the Employer and is named as such in the Contract Agreement or his representative(s), who is/are duly authorised to deal the contract.
- d) **“Contractor’s representative”** means the person(s) named by the Contractor in the contract or appointed from time to time by the Contractor, under **GCC Clause No. 7.21 [Contractor’s personnel and Contractor’s representative]**, who acts on behalf of the Contractor.
- e) **“Sub-contractor”** shall mean a person or persons, firm or company to whom a part of the work has been sub-contracted by the Contractor, with prior consent of the Employer.
- f) **“Contractor’s personnel”** means the Contractor’s representative and all personnel whom the Contractor utilises on site, who may include staff, labour and other employees of the Contractor and of each Sub-contractor, and any other personnel assisting the Contractor in the execution of the work.

- g) **“Engineer”** means the person appointed by the Employer to act as the Engineer for the purposes of the contract and named in the **Contract data**, or other person appointed from time to time by the Employer and notified to the Contractor under **GCC Clause No. 7.18 [Replacement of the Engineer]**.
- h) **“Engineer’s Representative”** means any sub-ordinate Engineer or assistant to the Engineer or any other official appointed from time to time by the Engineer to perform the duties set forth in **GCC Clause Nos. 7.13 to 7.15** hereof.
- i) **“Engineer-in-charge”** means employee of KoPT, authorised by the Engineer to look after the physical execution of the contract, at site level.
- j) **“Haldia Dock Complex”** or **“HDC”** means a Dock Complex situated at Haldia, under **Kolkata Port Trust**.
- k) **“Chairman”** means the Chairman of the Board of Trustees for the Port of Kolkata (Kolkata Port Trust) and includes the person appointed to act in his place under Sections 14 and 14A of the Major Port Trusts Act, 1963.
- l) **“Deputy Chairman”** means the Deputy Chairman, Haldia Dock Complex and includes the person appointed to act in his place.
- m) **“General Manager (Engineering)”** means the Officer appointed to take charge of Plant & Equipment Division, Infrastructure & Civic Facilities Division and Materials Management Division of HDC, under the supervision of the Deputy Chairman, HDC.
- n) **“Senior Deputy Manager (P&E)”** means the Officer of Plant & Equipment Division of HDC, reporting to the General Manager (Engineering).

7.1.3 Dates and periods:

- a) **“Completion period”** means the time of completion/period of execution notified under 7.65 [Completion period].
- b) **“Month”**, for the purpose of this contract, shall mean the period starting from the date of commencement in any month to the previous date of the following month, as per English Calendar.
- c) **“Week”**, for the purpose of this contract, shall mean any period of 7 (seven) consecutive English Calendar Days.
- e) **“Day”**, for the purpose of this contract, means English Calendar Day.

7.1.4 Money and payments:

- a) **“Contract price”** or **“Contract value”** means the sum named in the **“Letter of Acceptance (LOA)”** [excluding GST] of the bid /offer of the Contractor, subject to such additions thereto and deductions therefrom, as may be made by the Engineer, under the provisions contained in this bidding document.
- b) **“Cost”** means all expenditure reasonably incurred (or to be incurred), by the Contractor, whether on or off the site, including overhead and similar charges, but does not include profit.

- c) **“Foreign Currency”** means the currency other than Indian Currency.

7.1.5 Work:

- a) **“Work”** means the work to be executed in accordance with the contract and includes authorised **“Extra work”**, **“Excess work”** and **“Temporary work”**.
- b) **“Temporary work”** means all temporary work of every kind required in or about the execution, completion or maintenance of the work and includes (without thereby limiting the foregoing definitions) all temporary erections, scaffolding, ladders, timbering soaking vats, site offices, cement and other godowns, platforms and bins for stacking building materials, gantries, temporary tracks and roads, temporary culverts and mixing platforms.
- c) **“Excess work”** means the required quantities of work, in excess of the provision made in the contract, against any item of the **“Price Schedule”**.
- d) **“Extra work”** means those work, required by the Engineer for completion of the contract, which were not specifically and separately included in the schedule of items of the work (i.e. **“Price Schedule”**) of the bidding document.
- e) **“Related Services”** means the services incidental to the supply of goods / contract job, such as insurance, installation, training, initial maintenance and other obligations of the Contractor, under the contract.

7.1.6 Other definitions

- a) **“Constructional plant”** means all appliances or things, of whatsoever nature, required in or about the execution, completion or maintenance of the work or temporary work and includes (without thereby limiting the foregoing definition) all machinery and tools, but does not include materials or other things intended to form or forming part of the permanent work.
- b) **“Site”** means the land and other places, on, under, in or through which the contract is to be executed or carried out and any other lands or places provided by the Employer for the purpose of the contract.
- c) **“Excepted Risks”** means riot, in so far as it is uninsurable, war, invasion, act of foreign enemies, hostilities (whether war be declared or not), Civil War, rebellion, revolution, insurrection or military or usurped power or use or occupation by the Trustees of any portion of the works in respect of which a certificate of completion has been issued (all of which are herein collectively referred to as the excepted risks).
- d) **“Approved / approval”** means approval in writing.
- e) **“Test on Completion”** means such tests, prescribed by the applicable Design Standard, codes and described in the bidding document, to be performed by the Contractor before the equipment / items / installations are supplied, delivered and taken over by the

Employer.

- f) **“Defect Liability Period (DLP)” means the period defined in the GCC Clause No. 7.67.**
- g) **“Force Majeure” is defined in GCC Clause No. 7.86 [Definition of Force Majeure].**

7.2 Contract documents

- 7.2.1 The several documents forming the contract are to be taken as mutually explanatory of one another and should anything appear in one, which is not described in the other, no advantage shall be taken of any such omission.
- 7.2.2 In case, any discrepancies or inconsistencies however appear or should any misunderstandings arise as to the meaning and of the specifications or drawings or as to the dimensions or the quality of the materials or the due and proper execution of the work or as to the measurement or quality and valuation of the work executed under this contract or as extra thereupon, the same shall be explained by the Engineer or his authorised representative.
- 7.2.3 The explanation of Engineer or his authorised representative shall be final and binding upon the Contractor and the Contractor shall execute the work according to such explanations, and without extra charge or deductions and do all such work and things as may be necessary for the proper execution of the contract as implied by the specification and drawings, even though such work and things are not specifically shown and described therein.

7.3 Interpretations

- 7.3.1 In the contract, except where the context requires otherwise:
 - a) words indicating one gender include all genders;
 - b) words indicating the singular also include the plural and words indicating the plural also include the singular;
 - c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing;
 - d) **“written” or “in writing”** means hand-written (manuscript), type-written, printed or Electronically made, and resulting in a permanent record, under or over signature and seal, as the case may be;
and
 - e) the word “tender” is synonymous with “bid”, and “tenderer” with “bidder” and the words “tender documents” with “bidding documents”.

7.4 All Drawings are Trustees’ property

- 7.4.1 The Drawings, referred to in the Special Conditions of Contract / Technical Specification / Price Schedule, if and as applicable, shall be furnished by the Engineer to the Contractor, free of cost, for his use on the work, but these shall remain the property of the Trustees and hence, the Contractor shall return them to the Engineer or his Representative on completion of the work, if not torn or mutilated on being regularly used at site.

7.5 Language

7.5.1 The contract as well as all correspondence and documents relating to the contract, exchanged between the Contractor and the Employer/Engineer, shall be written in **English Language only**. If any documents/manuals/printed literature/drawings is submitted by the Contractor in other language(s), the same should be accompanied by an accurate translation of the relevant pages in the English language. In that case, for the purposes of interpretation of the contract, such translation shall govern.

7.5.2 The Contractor shall have to bear all costs of translation to the English Language and all risk of the accuracy of such translation, for documents provided by the Contractor.

7.6 Notices

7.6.1 Any notice, given by one party to the other, pursuant to the contract, shall be in writing, to the address specified in the **Contract data**. The term “in writing” means communicated in written form, with proof of receipt.

7.6.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

7.7 Governing Law

7.7.1 The contract shall be governed by and interpreted in accordance with the relevant Indian Acts [considering latest amendment thereof], as applicable, within the jurisdiction of the Honourable High Court of Kolkata [Calcutta High Court] , India, including the following Acts:

- i) The Indian Contract Act, 1872.
- ii) The Major Port Trust Act, 1963.
- iii) The Workmen’s Compensation Act, 1923.
- iv) The Minimum Wages Act, 1948.
- v) The Payment of Wages Act, 1936.
- vi) The Payment of Bonus Act, 1965.
- vii) The Payment of Gratuity Act, 1972.
- viii) The Equal Remuneration Act, 1976.
- ix) The Employees Provident Fund Act, 1952.
- x) The Employees State Insurance Act, 1948 & The Employees State Insurance (Amendment) Act, 1989.
- xi) The Contract Labour (Regulation & Abolition) Act, 1970; Rules 1971.
- xii) Child Labour (Prohibition & Regulation) Act, 1986.
- xiii) The Maternity Benefits Act, 1961.
- xiv) Interstate Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979.
- xv) The Dock Workers (Regulation of Employment) Act, 1948.

- xvi) The Dock Workers (Safety, Health & Welfare) Act, 1986.
- xvii) The Indian Arbitration and Conciliation Act, 1996 [considering its latest amendment in 2015].
- 7.7.2 Unless otherwise specified, all the laws / rules / acts, etc., mentioned in different clauses of this bidding document, should be considered as laws / rules / acts, etc. applicable in India.
- 7.7.3 The Contractor shall indemnify KoPT for any proceeding taken or commenced by any authority against the Employer for any contravention of any of such laws, bye laws, rules, regulations, orders, etc., by the Contractor or their personnel / workmen / agent / supplier, etc. If, as a result of the Contractor's failure, negligence, omission, default or non-observance of any provisions of any law, bye law, rule, regulation, order, etc., the Employer is called upon by any authority to pay or reimburse or is required to pay or reimburse any amount, the Employer shall be entitled to deduct the same from any amount due or that may become due to the Contractor under this contract or any other contract or by any other means or may otherwise recover from the Contractor any sum which KoPT is required or called upon to pay or reimburse on behalf of the Contractor.
- 7.7.4 The Contractor shall indemnify KoPT for any proceeding taken or commenced by any authority against the Employer for any contravention of any of such laws, bye laws, rules, regulations, orders, etc., by the Contractor or their personnel/workmen/agent/supplier, etc. If, as a result of the Contractor's failure, negligence, omission, default or non-observance of any provisions of any law, bye law, rule, regulation, order, etc., the Employer is called upon by any authority to pay or reimburse or is required to pay or reimburse any amount, the Employer shall be entitled to deduct the same from any amount due or that may become due to the Contractor under this contract or any other contract or by any other means or may otherwise recover from the Contractor any sum which KoPT is required or called upon to pay or reimburse on behalf of the Contractor.

7.8 Patent Rights

- 7.8.1 The Contractor shall fully indemnify KoPT against any action, claim or demand, costs or expenses arising from or incurred by reason of any infringement or alleged infringements of letters, patents, design, trademark or name, copyright or other protected rights in respect of any machine, plant, work, materials or things, system or methods of using, fixing working or arrangement used for fixed or supplied by the Contractor in India, or elsewhere.
- 7.8.2 All payments, or otherwise shall be deemed to be included by the Contractor in the prices named in the bid and shall be paid by them to whom they may be payable.
- 7.8.3 In the event of any claim being made or action brought against KoPT in respect of any such matter as aforesaid, the Contractor shall be immediately notified thereof and they shall with the assistance, if they so require, of KoPT but at the sole expense of the Contractor conduct all negotiations for the settlement of the same or any litigation that may arise there from, provided that the conduct of such negotiations or litigations shall be conditional upon the Contractor giving to KoPT such security, as shall from

time to time, by reasonably required by KoPT to recover the ascertained or agreed amount, as the case may be, of any compensation, damages, expenses and cost, which might be payable by the Trustees in respect of or as a result of any such negotiation or litigation.

7.9 **Stamp duty & other expenses**

- 7.9.1 All the costs, charges and expenses to be incurred in connection with **Contract Agreement, Indemnity Bond, Bank Guarantees, Integrity Pact**, etc., including stamp duty, shall be borne by the Contractor.

7.10 **Indemnity**

- 7.10.1 Notwithstanding that all reasonable and proper precautions may have been taken by the Contractor, at all times during the progress of the work, the Contractor shall, nevertheless, be wholly responsible for all damages, whether to the works themselves or to any other property of KoPT or to the lives, persons, property of others during the progress of the work.
- 7.10.2 In case any damage occurs to the existing structure due to the Contractor's operation, the same shall be made good by the Contractor, at their own risk and cost. The areas, which are likely to be unsafe for use, shall be barricaded and all necessary precautionary measures, like displaying notices, shall be taken by the Contractor, during the contract period.
- 7.10.3 In case any material, spare parts, components, sub-assemblies, accessories, etc., related to the work (under the scope of the Contractor), is required to be taken out of the Dock premises by the Contractor, for some specialised servicing, repairs, overhauling, etc. or for any other reason whatsoever, the Contractor shall have to obtain permission from the Employer. For this the Contractor shall have to submit an **"Indemnity Bond"** [in the form furnished in **Section-XI**].

7.11 **Employer's lien**

- 7.11.1 All constructional plant, temporary work and materials, when brought to the site by the Contractor, shall be deemed to be the property of the Employer, who will have lien on the same, until the satisfactory completion of the work and shall only be removed from the site, in part or in full, with the written permission of the Engineer or his Representative.
- 7.11.2 The Employer shall have a lien on and over all or any money that may become due and payable to the Contractor under this contract or any other contract or from any amount lying with them or under their control and in respect of any debt or sum that may become due and payable by the Employer to the Contractor, either alone or jointly with another or other and either under this contract or under any other contracts or transaction of any nature whatsoever between the Employer and the Contractor.

7.12 **Additions and alterations**

- 7.12.1 KoPT shall have power and authority, from time to time and at all times, to make amendments or additions or alterations or changes in the **Technical Specification** and give such further instructions and directions, as may appear necessary and proper to KoPT for the guidance of the Contractor and good & efficient execution of the work.
- 7.12.2 The Contractor shall receive, obey and be bound by the same, according to the true intent and meaning thereof, as if the same had been mentioned or

referred to in the **Technical Specification**.

- 7.12.3 KoPT may also vary or alter the levels or positions of any of the work contemplated by approved specification or may order any of the work contemplated thereby to be omitted, with or without substitution of any other works in lieu thereof, or may order any work or any portion of works executed or partially executed, to be removed, changed or altered, if required.

In this connection, KoPT may increase or decrease or split the quantity of work included in the contract or execute additional work of any kind necessary for good & efficient execution of the work.

- 7.12.4 The Engineer shall have the power to order for the above amendments (additions/alterations/changes, etc.) and any difference in the cost occasioned by any such diminution or alteration so ordered and directed shall be added to or deducted from the amount accepted under the contract based on the rate(s) available in the contract. Where the rate(s) is/are not available in the contract, such difference in the cost shall be determined by the Engineer, taking into account the market rate and labour cost at site for similar work, backed up by rate analysis, (to be submitted by the Contractor and agreed upon between the Contractor and KoPT).

In the event of disagreement, KoPT shall fix such rates or prices as shall, in their opinion, be reasonable and proper having regard to the circumstances.

B. THE ENGINEER

7.13 Instructions of the Engineer or Engineer's Representative

- 7.13.1 The Contractor shall execute, complete and maintain the works in terms of the contract to the entire satisfaction of the Engineer and shall comply with the Engineer's direction on any matter whatsoever. However, the Engineer shall exercise his discretion impartially, within the terms of the contract and have regard to all the circumstances.

The Contractor shall take instructions from the Engineer and subject to limitation indicated in **GCC Clause No. 7.16.1** hereof, from the Engineer's Representative.

7.14 Engineer's power and authority

- 7.14.1 The Engineer shall have full power and authority:
- a) to supply to the Contractor, from time to time, during the progress of the works, such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.
 - b) to alter or modify the specification of any material and workmanship and to inspect the work at any time.
 - c) to order for any variation, alteration and modification of the work and for extra works.
 - d) to issue certificates as per contract.
 - e) to settle the claims & disputes of the Contractor.

- f) to grant extension of completion time.

7.15 Power of Engineer's Representative

7.15.1 The Engineer's Representative shall:

- a) watch and supervise the work.
- b) test and examine any material to be used or workmanship employed in connection with the work.
- c) have power to disapprove any material and workmanship not in accordance with the contract and the Contractor shall comply with his direction in this regard.
- d) take measurements of work done by the Contractor for the purpose of payment or otherwise.
- e) order demolition of defectively done work for its reconstruction all by the Contractor at his own expense
- f) have powers to issue alteration order not implying modification of design and extension of completion time of the work.
and
- g) have such other powers and authorities vested in the Engineer, which have been delegated to him, in writing, by the Engineer under intimation to the Contractor.

7.16 Limitation of Engineer's Representative's power

7.16.1 Provided always that the Engineer's Representative shall have no power:

- a) to order any work involving delay or any extra payment by the Trustees,
- b) to make variation of or in the work,
and
- c) to relieve the Contractor of any of his duties or obligations under the contract.

7.17 Engineer's over-riding power

7.17.1 Provided also as follows:

- a) Failure of Engineer's Representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or materials and to order the pulling down, removal, breaking-up thereof and re-constructing at the Contractor's cost and the Contractor shall have no claim to compensation for the loss sustained by them.
- b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's Representative, they shall be entitled to refer the matter to the Engineer, who shall thereupon confirm, reverse or vary such decision which will be final, conclusive and binding on the parties.
- c) Any written instructions or written approval given by the Engineer's

Representative to the Contractor, within the terms of delegation of power and authority vested in the Engineer to his representative, in writing, shall bind the Contractor and the Trustees as though it had been given by the Engineer, who may, from time to time, make such delegation.

7.18 **Replacement of the Engineer**

- 7.18.1 If the Employer intends to replace the Engineer, the Employer shall give notice to the Contractor in this respect.

7.19 **Determinations**

- 7.19.1 Whenever these conditions provide that the Engineer shall proceed, in accordance with this clause, to agree or determine any matter, the Engineer shall consult with each party, in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination, in accordance with the contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both parties of each agreement or determination, with supporting particulars **within 28 (twenty-eight) days** from the receipt of the corresponding claim or request, except when otherwise specified. Each party shall give effect to each agreement or determination, unless and until revised under **GCC Clause Nos. 7.94 to 7.98 [Claims, Disputes and Arbitration]**.

C. THE CONTRACTOR

7.20 **Performance Guarantee / Security Deposit**

- 7.20.1 As specified in the **SCC**, the Contractor shall have to provide **Performance Guarantee / Security Deposit** towards guaranteeing the performance of the Contractor in execution of the contract.
- 7.20.2 The **Performance Bank Guarantee(s)** shall be denominated in the currency(ies) of payment in the contract , and shall be in the form furnished in **Section-XI**.
- 7.20.3 The original Bank Guarantee should be sent by the issuing Branch of the Bank, directly to the Employer, under Registered Post (A.D), at the following address:

General Manager (Finance),
Haldia Dock Complex (HDC),
Jawahar Tower Complex,
P.O: Haldia Township,
Dist.: Purba Medinipur,
PIN – 721 607,
West Bengal, India.

A photocopy of the Bank Guarantee should also be sent to the Engineer, by the Contractor, for record.

The General Manager (Finance), HDC may require Bank's confirmation for having issued the Guarantee. In that case, the issuing Branch of the Bank should send a confirmation letter, directly to the Employer, under Registered Post (A.D), at the above address.

- 7.20.4 Failure of the Contractor to submit the required Performance Bank Guarantee, as mentioned in **GCC Clause No. 7.20.1** and in the manner stated in the **SCC**, shall constitute sufficient grounds for termination of the contract and forfeiting the Earnest Money Deposit.
- 7.20.5 The proceeds of **Performance Guarantee / Security Deposit** shall be payable to the Employer, as compensation, for any loss resulting from the Contractor's failure to complete its obligations under the contract.
- 7.20.6 **Performance Guarantee/Security Deposit** shall be liable to be forfeited, at the option of the Employer, if the Contractor fails to carry out the work or to perform / observe any of the conditions of the contract.
- 7.20.7 The Employer shall be at liberty to deduct/recover any of their dues from **Security Deposit/Performance Guarantee**.
In that case, if **Security Deposit / Performance Guarantee** is reduced by reason of any such deduction or encashment, the Contractor shall have to, **within 15 (fifteen) days thereafter**, make good the amount so reduced.
- 7.20.8 The cost of obtaining **Performance Bank Guarantee** or any other Bank Guarantee and / or revalidation thereof, whenever required, has to be borne by the Contractor and it shall be their sole responsibility to arrange for timely revalidation of such Bank Guarantee, failing which and for non-fulfilment of any contractual obligation by the Contractor, the Engineer and/or the Employer shall be at liberty to raise claim / demand under Performance Guarantee and/or enforce the same unilaterally.
No interest/charge, of whatsoever nature, shall be paid by the Employer on the amount of **Security Deposit / Performance Guarantee** held by the Employer, at any stage.
- 7.20.9 On completion of execution of the work, the Contractor shall maintain the same during the "**Defect Liability Period**", as specified in **GCC Clause No. 7.67**, from the date mentioned in the "**Certificate of Completion of Work**" [as per the form furnished in **Section-XI**]. Any defect / fault, which may appear in the work during the aforesaid maintenance period, arising, in the sole opinion of the Engineer or his Representative, from materials or workmanship not in accordance with the contract or the instruction of the Engineer or his Representative, shall, upon the written notice of the Engineer or his Representative, be amended and made good by the Contractor, at his own cost, within 7 (seven) days of the date of such notice, to the satisfaction of the Engineer or his Representative, failing which, the Engineer or his Representative shall have the defects amended and made good through other agency at the Contractor's risk and cost and all expenses, consequent thereon or incidental thereto, shall be recoverable from the Contractor in any manner deemed suitable by the Engineer.
- 7.20.10 The contract shall not be considered completed and the work shall not be treated as finally accepted by the Trustees, until a "**Certificate of Final Completion**" [as per the form furnished in **Section-XI**] shall have been signed and issued by the Engineer, after all obligations under the contract, including that in the Defect Liability Period (DLP), if any, have been fulfilled by the Contractor. Previous entry on the works or taking possession, working or using thereof by the Trustees shall not relieve the Contractor of his obligations under the contract for full and final completion

of the work.

- 7.20.11 Refund of **Performance Guarantee / Security Deposit** would be guided by the procedure detailed in the **SCC**.

7.21 **Contractor's personnel and Contractor's representative**

- 7.21.1 The Contractor's personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the site of work, including the Contractor's representative, if applicable, who:

- a) persists in any misconduct or lack of care,
- b) carries out duties incompetently or negligently,
- c) fails to conform with any provisions of the contract, or
- d) persists in any conduct, which is prejudicial to safety, health or protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

- 7.21.2 The Contractor shall have to communicate the names of their officials/representatives, authorized by them through **Power of Attorney** (specimen signature of such authorized representative should be attested), to make all correspondences and sign all documents/papers in relation to this contract.

Written orders or instructions, which the Employer may issue to such authorized officials/ representatives of the Contractor, shall be deemed to have been given to the Contractor.

- 7.21.3 In case any of such authorised persons fails to act as Contractor's representative, the Contractor shall similarly communicate the name and particulars of another suitable person for such authorization.

The Contractor shall have to notify the Engineer, immediately after revoking the appointment of the Contractor's representative and appointment of a replacement.

- 7.21.4 If any of the Contractor's representatives/officials is required to be temporarily replaced during the period of contract, the name of the person temporarily authorised [by any one of the authorised officials/representatives, authorized earlier through **Power of Attorney**], shall have to be notified. Specimen signature of such temporarily authorised representative(s) should be attested [by the said authorised official/representative].

7.22 **Assignment and sub-contracting**

- 7.22.1 The Contractor shall not, directly or indirectly, transfer, assign, sublet or sub-contract the whole of the work.

Unless otherwise stated in the contract, the Contractor shall not, directly or indirectly, transfer, assign, sublet or sub-contract any part of the work without prior consent of the Engineer. Any such consent shall not relieve the Contractor from any of their liabilities or obligations under the contract and they shall be responsible for :

- a) the acts, defaults and neglect of any Sub-contractor, their agents, servants or workmen as fully as if these were the acts, defaults or neglects of the Contractor, their agents, servants or workmen,
- b) their full and entire responsibility of the contract and active superintendence of the work by them despite being sublet.

Provided that the Contractor shall not be required to obtain such permission for:

- i) the provision of labour engaged on piece-work basis/daily rate basis,
- ii) the purchase of materials/services which are in accordance with the standards specified in the contract,
- or
- iii) the sub-contracting of any part of the work, for which the Sub-contractor is named in the contract.

The Contractor shall be responsible for observance, by all Sub-contractors, of labour laws applicable in India (for the portion of work that would be executed in India) and all other provisions of the contract.

- 7.22.2 No **participating bidder** [in connection with the instant tender] will be allowed to act as a **Sub-contractor** of the successful bidder (Contractor).
- 7.22.3 In the event of the Contractor contravening aforesaid condition [**GCC Clause No. 7.22.2**], the Employer shall be entitled to terminate the contract forthwith and award a fresh contract to some other parties at **risk and cost of the Contractor**, who shall be liable for any loss or damage, which KoPT may sustain in consequence to arising out of such replacement of the Contractor.
- 7.22.4 The Contractor shall not assign their right and interest in these presents nor assume a fresh partner or partners, dissolve the partnership existing between them in reference to this contract, without the prior written permission of the Employer.

7.23 Access to site

- 7.23.1 The Contractor shall have to abide by the **rules and regulations of Kolkata Port Trust (KoPT)** in respect of entry / exit and movement in the dock premises.
- 7.23.2 Necessary **Gate Pass / Dock Entry Permit**, for entering into the Dock area, will be issued to the personnel of the Contractor [including that of approved Sub-contractor(s)] directly connected with the work, **on chargeable basis** [as per the extant “**Scale of Rates**” of KoPT, available at <http://www.kolkataporttrust.gov.in/> of **Kolkata Port Trust**], on receipt of a formal written request.

However, for issuing such Gate Pass, the following would be required:

- i) **For Indian nationals:** A photocopy of the Voter’s Identity Card/any other Photo Identity Card.
- ii) **For foreign nationals (excluding from Nepal and Bhutan):** **Permission in the form of “No objection” for entering Haldia Dock**, from the office of the **Superintendent of Police, Purba**

Medinipur, West Bengal, India, which acts as the District Registration Office for foreigners.

Dock Entry Permits shall not be issued to the mentioned foreign nationals without the aforesaid permission. The aforesaid “No objection”, along with photocopies of Passport and Visa of the foreign national, has to be submitted to the Administration Division of HDC, KoPT, with an application for obtaining Dock Entry Permit(s).

- 7.23.3 The Contractor will be fully responsible for any injury (whether fatal or otherwise) to their personnel [including that of approved Sub-contractor(s)], for any loss or damage to property or for any other loss, damage, costs and expenses, whatsoever caused, which, but for the granting of such permission, would not have arisen.
- 7.23.4 The Contractor will be liable to indemnify the Employer against any loss or damage to the property of the Employer or neighbouring property, which may be caused due to any act of the Contractor or their personnel [including that of approved Sub-contractor(s)].
- 7.23.5 **No photograph within the Dock Area** shall be taken by the Contractor, without prior permission of the Engineer.

7.24 **Transportation of materials**

- 7.24.1 All materials, spare parts, tools, tackles, service equipment, including consumables, required under this contract, will have to be packed, securely placed and protected by the Contractor during transportation. The Contractor will be held responsible for the inefficient packing, storing and protection of the materials.

7.25 **Contractor's equipment**

- 7.25.1 The Contractor shall be responsible for all the equipment of the Contractor. When brought on to the site, the Contractor's equipment shall be deemed to be exclusively intended for the execution of the work. The Contractor shall not remove from the site any major items or Contractor's equipment without the consent of the Engineer. However, consent shall not be required for vehicle(s) transporting goods or Contractor's personnel off site.

7.26 **Supply of water and Electricity**

7.26.1 **Supply of water:**

Drinking water supply at the **Contractor's site office, store, workshop, assembly/erection yard, etc.** will be given **on chargeable basis**. For this, the Contractor shall have to make **all arrangements, including installation of Water Meter and laying of pipelines from the source(s) identified by KoPT, at their cost**. The Contractor will be responsible for maintenance and calibration of such water meter also. Billing against water supply will be done in line with SCC.

KoPT do not guarantee uninterrupted supply of water and the Contractor shall not be compensated for any delay or irregularity in supplying water. The Contractor shall have to arrange for the supply of water at his own cost during such periods.

However, water supply, if required for the **actual work (including erection, commissioning & cleaning work) at the site only** and / or

maintenance, repair & cleaning work (required to be carried out at site during the “Defect Liability Period”) will be provided free of cost. The Contractor shall have to make **all arrangements for laying of pipelines from the source(s) identified by KoPT, at their cost.**

7.26.2 **Supply of Electricity:**

Supply of Electricity at the **Contractor’s site office, store, workshop, assembly / erection yard, etc.** will be on **chargeable basis**. The Contractor shall have to make all arrangements, including **installation of Energy Meter and laying of Cables from the source(s) identified by KoPT, at their cost.** The Contractor will be responsible for maintenance and calibration of such Energy Meter also. Billing against **electricity charges** will be done in line with SCC.

KoPT do not guarantee uninterrupted supply of Electricity and the Contractor shall not be compensated for any delay or irregularity in supplying Electricity. The Contractor shall have to arrange for Electricity at his own cost during such periods.

However, Power supply, required for the **actual work (including erection and commissioning) at the site only** and/or **maintenance and repair** (required to be carried out at site during the “Defect Liability Period”) will be provided free of cost. The Contractor shall have to make all arrangements for **laying of Cables from the source(s) identified by KoPT, at their cost.**

7.27 **Use of ground and land/covered space for Contractor’s establishment**

7.27.1 The Contractor shall be allowed to use a suitable land (open space), which in the opinion of KoPT may be absolutely necessary for the proper and efficient execution of works. For this, a token lump sum licence fee of **₹10.00 per month or part thereof** will be charged during pendency of the contract and extension thereof, if any.

7.27.2 On completion of work or termination of the contract, the Contractor shall have to clear away all their tools, plants, rubbish and other materials, **within a fortnight** and hand over vacant and peaceful possession of the same to KoPT, in a tidy and clean condition. The same license fee (₹10.00 per month or part thereof) will be applicable for this additional period (if any) for clearing the space. If the Contractor fails to clear the space and handover the same to the Employer in a clean and tidy condition, within the period mentioned above, KoPT’s “Schedule of Rate” will be applicable for the period beyond that.

7.27.3 The Contractor shall be allowed to erect any temporary structures on this land [as stated in **GCC Clause No. 7.27.1**] for **office and / or store and / or workshop**, etc. and make all suitable arrangement for water supply, Electricity supply and sanitary arrangements for the same, at their own cost.

7.27.4 In case the Contractor is interested in taking **covered space, office room**, etc. of KoPT for the purpose of making a site office and store in the Dock area, the same may also be allotted subject to availability. The rents for such covered spaces or office room of KoPT, to be allotted to the Contractor, shall have to be paid by the Contractor, as per the ‘Schedule of Rent of KoPT, prevailing at that time. In addition to the rent, **water consumption charges** [as per **GCC Clause Nos. 7.26.1**] and **Electricity consumption**

charges [as per **GCC Clause No. 7.26.2**] (if Electricity / water is supplied from KoPT sources) and other applicable charges, as per the notifications of **Tariff Authority of Major Ports (TAMP)**, have to be paid by the Contractor. The Contractor will be responsible for installation, maintenance and calibration of Water Meter and / or Energy Meter also.

7.28 Existing services

7.28.1 Drains, Pipes, Cables, overhead wires and similar services, whether above or below the ground, which may be encountered in the course of the work, shall be saved and kept harmless from injury and/or loss or damages by the Contractor, at their own costs and expenses, so that they continue to be in full and uninterrupted use to the Employer.

7.28.2 The Contractor shall not store any materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. The Contractor shall, at their own costs and expenses and without any delay, repair and make good, to the satisfaction of the Employer, any injury and/or loss or damage caused by the Contractor to the same.

7.29 Contractor to prepare working/ progress drawings

7.29.1 The Contractor shall provide and make, at his own expense, any working or progress drawings, required by him or necessary for the proper execution of the works, and shall, when required, furnish copies of the same, free of cost, to the Engineer for his information and/or approval, without meaning thereby the shifting of Contractor's responsibility on the Engineer, in any way, whatsoever.

7.30 Contractor's price is inclusive of all costs

7.30.1 Unless otherwise specified, the Contractor shall be deemed to have included in his bid / offer all his cost for supplying and providing all constructional plant, temporary work, materials (both for temporary and permanent works), labour (including supervision thereof), transporting to and from the site and in and about the work, including loading, unloading, fencing, watching, lighting, payment of fees, taxes and duties to the appropriate authorities and other things of every kind required for the construction, erection, completion and maintenance of the work.

7.31 Contractor is responsible for all construction process, except for correctness of design and specification formulated by the Engineer

7.31.1 The Contractor shall be solely responsible for the adequacy, stability and safety of all site operations and methods of construction, even if any prior approval thereto has been taken from the Engineer or his Representative. The Contractor shall not be responsible for the correctness of the design or specification of the temporary and permanent works formulated by the Engineer, but the Contractor shall be fully responsible for the correct implementation thereof, as also for any design and specification prepared/proposed/used by the Contractor.

7.32 Contractor to submit his programme of work

7.32.1 Whenever required by the Engineer or his Representative, the Contractor shall submit to him the details of his

(a) programme for execution of the work,

- (b) proposed procedure and methods of work,
- (c) proposed deployment of plant, equipment, labour, materials and temporary works.

The submission to and/or any approval by the Engineer or his Representative to any such programme or particulars shall not relieve the Contractor of any of his obligations under the contract.

- 7.32.2 If, for any reason, the Contractor be unable to adhere to his earlier programme, he shall submit his revised programme for completion of work within the stipulated time, whenever asked to do so.

7.33 Contractor to supervise the works

- 7.33.1 Necessary and adequate supervision shall be provided by the Contractor during execution of the works and as long thereafter as the Engineer or his Representative shall consider necessary during the Defect Liability Period (DLP). The Contractor, or his competent and authorised agent or representative, shall be constantly at site and instructions given to him by the Engineer or his Representative, in writing, shall be binding upon the Contractor subject to limitation in **GCC Clause No. 7.16** hereof. The Contractor shall inform the Engineer or his Representative in writing about such representative/agent of him at site.

7.34 Contractor is responsible for line, level, setting out, etc.

- 7.34.1 The Contractor shall be responsible for the true and proper setting out of the works, in relation to reference points / lines / levels given by the Engineer, in writing. The checking of any setting out or of any alignment or level by the Engineer or his Representative shall not, in any way, relieve the Contractor of his responsibility for the correctness thereof and he shall fully provide, protect and preserve all stakes, templates, bench marks, sight rails, pegs, level marks, profile marks and other things used in setting out the works.

7.35 Contractor is responsible to protect the work

- 7.35.1 From the commencement of the works till issue of the “Certificate of Completion of Work”, vide **GCC Clause No. 9.65** hereof, the Contractor shall take full responsibility for the care thereof. Save for the excepted risks, any damage, loss or injury to the work, or any part thereof, shall be made good by the Contractor, at his own cost, as per instruction and to the satisfaction of the Engineer, failing which, the Engineer or his Representative may cause the same to be made good by any other agency and the expenses, incurred and certified by the Engineer, shall be recoverable from the Contractor, in whatever manner the Engineer shall deem proper. This clause will not apply to that part of the work, which might have been taken over by the Trustees on partial completion of the work and in such case, the Contractor’s obligation will be limited to repairs and replacement for manufacturing or construction defects during the Defect Liability Period, as per the directions of the Engineer, as also for defects/damages, if any, caused to the work by the Contractor during such repairs and replacement during the Defect Liability Period.

7.36 Contractor is responsible for all damages to other structures / persons caused by him in executing the work

7.36.1 The Contractor shall, at his own cost, protect, support and take all precautions in regard to the personnel or structure or services or properties belonging to the Trustees or not, which may be interfered with or affected or disturbed or endangered and shall indemnify and keep indemnified the Trustees against claim for injury, loss or damage caused by the Contractor in connection with the execution and maintenance of the work to the aforesaid properties, structures and services and / or to any person, including the Contractor's workmen. Cost of Insurance Cover, if any, taken by the Contractor, shall not be reimbursed by the Trustees, unless otherwise stipulated in the contract.

7.37 Fossils, Treasure troves, etc. are Trustees' property

7.37.1 The Contractor shall immediately inform the Engineer's Representative if any fossil, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological importance be discovered at site, which shall remain the property of the Trustees, and protect them from being damaged by his workmen and arrange for disposal of them, at the Trustees' expense, as per the instruction of the Engineer's Representative.

7.38 Contractor to indemnify the Trustees against all claims for loss, damage, etc.

7.38.1 The Contractor shall be deemed to have indemnified the Trustees against all claims, demands, actions and proceedings and all costs arising there from on account of:

- (a) Infringement of any patent right, design, trademark or name or other protected right, in connection with the works or temporary work.
- (b) Payment of all royalties, rent, toll charges, local taxes, other payments or compensation, if any, for getting all materials and equipment required for the work.
- (c) Unauthorised obstruction or nuisance caused by the Contractor in respect of Public or Private road, railway tracks, footpaths, crane tracks, waterways, quays and other properties belonging to the Trustees or any other person.
- (d) Damage/injury caused to any highway and bridge on account of the movement of Contractor's plants and materials in connection with the work.
- (e) Pollution of waterway and damage caused to river, lock, sea-wall or other structure related to waterway, in transporting Contractor's plants and materials.
- (f) The Contractor's default in affording all reasonable facilities and accommodation, as per the direction of the Engineer or his Representative, to the workmen of the Trustees and other agencies employed by or with the permission and/or knowledge of the Trustees on or near the site of work.

7.39 Dismantled materials Trustees' property

7.39.1 Debris and materials, if obtained by demolishing any property, building or structure, in terms of the contract, shall remain the property of the Trustees.

7.40 Contractor's quoted rates / price must be all inclusive

7.40.1 The Contractor's quoted rates shall be deemed to have been inclusive of the following:

- (a) Keeping the site free of unnecessary obstruction and removal from site of constructional plant wreckage, rubbish, surplus earth or temporary works no longer required.
- (b) Cleaning and removal from site all the surplus materials, of every kind, to leave the site clean and tidy after completion of the work, without which payment against final bill may be liable to be withheld.
- (c) Precautionary measures to secure efficient protection of Docks, the River Hooghly and other waterways against pollution, of whatever nature, during execution and maintenance of the works and to prevent rubbish, refuse and other materials from being thrown into the water by the Contractor's men or those of his agency.
- (d) Making arrangements for deployment of all labourers and workers, local or otherwise, including payment for their wages, transport, accommodation, medical and all other statutory benefits and entry permits, wherever necessary.
- (e) Making arrangements, in or around the site, as per the requirements of Calcutta Municipality Corporation or other local authority or the Engineer or his Representative, for preventing
 - (i) spread of any infectious disease like smallpox, cholera, plague, malaria or dengue, by taking effective actions for destruction of rats, mice, vermin, mosquitoes, etc. and by maintaining healthy and sanitary condition,
 - (ii) illegal storage and distribution of Drugs, Narcotics, Alcoholic liquor, Arms and Ammunitions,
 - (iii) unlawful, riotous or disorderly conduct of the Contractor's or his Sub-contractor's workmen,
 - (iv) deployment of workmen of age less than 16 (sixteen) years.

7.41 Notice to Contractor

7.41.1 Every direction or notice to be given to the Contractor shall be deemed to have been duly served on or received by the Contractor, if the same is posted or sent by hand to the address given in the bid or to the Contractor's Site Office or, in case of Trustee's enlisted Contractor, to the address as appearing in the Trustee's Register or to the Registered Office of the Contractor. The time mentioned in these conditions for doing any act after direction or notice shall be reckoned from the time of such posting or despatch.

7.42 Contractor not to publish photograph or particulars of work

7.42.1 The Contractor and his Sub-contractor or their agents and men and any firm, supplying plant, materials and equipment, shall not publish or caused

to be published any photographs or description of the works, without the prior authority of the Engineer in writing.

7.43 Contractor to provide facilities to outsiders

7.43.1 The Contractor shall, at the Trustees' cost to be decided by the Engineer, render all reasonable facilities and co-operation, as per direction of the Engineer or his Representative, to any other Contractor engaged by the Trustees and their workmen, to the Trustees' own staff and to the men of other Public Body, on or near the site of work, and in default, the Contractor shall be liable to the Trustees for any delay or expense incurred by reason of such default.

7.44 Work to cause minimum possible hindrance to traffic movement

7.44.1 The work has to be carried out by the Contractor causing minimum hindrance for any maritime traffic or surface traffic.

D. STAFF AND LABOUR

7.45 Engagement of staff and labour

7.45.1 The labour, as mentioned in the respective clauses, shall include all labourers of the approved sub-contractor(s), with respect to this contract.

7.45.2 The Contractor shall have to make their own arrangements for the engagement of all staff and labour, for doing the work at site or in respect of or in connection with the execution of work, as also for the transport, housing, feeding. They shall have to ensure making payment to the above staff and labours, to be engaged by them (including the labours, to be engaged by the approved Sub-contractor, if any).

7.45.3 KoPT's store shall mean any store of Haldia Dock Complex, situated at Haldia.

7.45.4 It is expressly made clear that both before and after the completion of the work or termination of the contract, **KoPT shall have no liability, whatsoever, for the personnel to be engaged by the Contractor [or by the approved Sub-contractor(s)] for the work under this contract.**

7.46 Labour Laws

7.46.1 The Contractor shall, at all times, during the pendency of the contract [including the period of making good/rectification of deficiencies/defects, if any], have to comply fully with all existing **Acts, Regulations and Byelaws**, including all **statutory amendments** and re-enactment of **State or Central Government** and other **Local Authorities** and any other enactments and acts that may be passed in future either by the **State** or the **Central Government** or **Local Authority**, including **Workmen's Compensation Act, Labour Laws and Equal Remuneration Act, Factories Act, Minimum Wages Act, Contract Labour (Regulation & Abolition) Act**, etc., if applicable and/or as applicable.

7.46.2 If, as a result of the Contractor's failure, negligence, omission, default or non-observance of any provisions of any laws, the Employer is called upon by any authority to pay or reimburse or required to pay or reimburse any amount, the Employer shall be entitled to deduct the same from any moneys due or that become due to the Contractor under this contract or any other

contract or otherwise recover from the Contractor any sums, which the Employer is required or called upon to pay or reimburse on behalf of the Contractor.

All **registration** and **statutory inspection fees**, in connection with labour engagement, with respect to this contract, shall have to be paid by the Contractor, if applicable and/or as applicable.

- 7.46.3 The Contractor shall have to, immediately after the occurrence of any accident, at or near the site or in connection with the execution of the work under the contract, report (over phone or otherwise) to the Engineer or his representative(s) and shall make every arrangement to render all possible assistance to the victim(s) of such accident.

The Contractor shall also have to report such accident to the Engineer, in writing (giving reference to the earlier communication made). Based on such report, necessary communication with the competent authority would be made whenever such a report is required by law.

- 7.46.4 For any accident occurred within the entire operational area covered under the contract, the Contractor shall have to arrange prompt investigation into the matter through recording of statement of the personnel witnessing the accident. Such “Accident Report”, containing the findings, along with the statements so recorded, shall have to be forwarded by the Contractor to the Engineer at the earliest.

- 7.46.5 The Contractor shall have to provide full medical treatment to their staff & labourers, in case of “**Accident on Duty**”, which will inter alia include their obligations under the **Workmen’s Compensation Act, 1923**, including all amendments thereof.

The Employer shall in no manner be liable to the Contractor or any person engaged/employed by them [including that of Sub-contractor] or any other person, for injuries or death caused as a result of accidents occurred, either within or outside the site of work, under the contract. The Contractor shall be responsible for such contingencies and will make good all claims for compensation, claim by their personnel/workmen or the families of the sufferer(s), as the case may be, or as per the decision of the appropriate authority/tribunal or other involved persons.

- 7.46.6 The Contractor shall have to indemnify KoPT, in the event of KoPT being held liable to pay compensation for injury to any Contractor's servants or workmen [including that of Sub-contractor] under the **Workmen's Compensation Act, 1923**, as amended from time to time.

- 7.46.7 Whenever the contract comes to an end with the efflux of time or otherwise or is terminated, the Contractor shall be required to fulfil all their obligations towards their workmen in terms of applicable labour laws and submit necessary documents towards such effect, to the Employer in support of the same. Any deposit, which may be lying with KoPT to their credit, will be liable to be applied for this purpose, if the Contractor fails to comply with the same. In case such documents are not furnished by the Contractor, the Employer will not release the **Performance Guarantee/ Security Deposit** and any other amount as may remain due to the Contractor

7.47 **Health and safety**

7.47.1 In the event of any outbreak of illness or an epidemic nature, the Contractor shall have to comply with and carry out such regulations, orders & requirements, as may be made by the Government, or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.

7.47.2 The Contractor shall have to ensure safety of all their working personnel to the fullest compliance of the provisions of **general safety rules/regulations**, including **Dock Workers' (Safety, Health & Welfare) Regulations, 1986**.

The Contractor shall be solely responsible for consequences arising out of non-compliance or violation of safety rules/ regulations.

7.47.3 The Contractor [including approved Sub-contractor(s)] shall have to provide (at their own expenses) all required **Personal Protection Equipment (PPE)** [such as **Helmets, Nose Masks, Hand Gloves**, etc.] & **Safety Gears** for all personnel and labourers engaged during the work and in case of their failing to do so, the Employer shall provide the same and recover the cost thereof from any amount due, or which may become due to the Contractor or from any amount lying with them or under their control.

7.48 **Labour licence**

7.48.1 Within 7 (seven) days from the date of issuance of the order, the Contractor shall have to apply for **labour licence** for the maximum number of workers proposed to be deployed for this work. Necessary certificate shall be issued by the Engineer against a request from the Contractor.

Photocopy of the application shall have to be furnished to the Engineer, immediately. However, payment will be released only on furnishing the copy of the **Labour Licence** to the Engineer. However, such license should be kept valid throughout the actual duration of contract.

7.49 **Employees' Provident Fund & Employees' State Insurance**

7.49.1 The Contractor should have their establishment (with respect to this contract) registered with the concerned authorities under the provision of **Employees' Provident Fund & Miscellaneous Provision Act, 1952** and **Employees' State Insurance Act, 1948**. The Contractor shall have to submit the proof of registration as mentioned above immediately after commencement of work.

7.49.2 As per the above mentioned Act, the Contractor is liable for remittance of monthly subscription contribution in respect of **Employees' Provident Fund (EPF)** and **Employees' State Insurance (ESI)** for the workers engaged by them, wherever applicable. The Contractor shall have to submit the authenticated copy of the challans with respect to subscription / contribution of **Employees' Provident Fund** and **Employees' State Insurance** (against their respective Code Numbers issued by the **Employees' Provident Fund** and **Employees' State Insurance Authorities**) by 7th day of every English Calendar Month (during the currency of the contract) along with the list of labourers for whom such deposits have been made.

Payment will be held up if the up-to-date **Employees' Provident Fund** and **Employees' State Insurance** remittance challan is not submitted in time.

- 7.49.3 In case, registration with the EPF and ESI Authorities is not applicable for the employees of the Contractor [or for the employees of the Sub-contractor(s)], documentary evidence to establish non-applicability to be submitted by the Contractor.
- 7.49.4 In case of sub-contracting any part of the work, above requirements should also be fulfilled by the approved Sub-contractor and necessary documents shall have to be submitted in time, as indicated above.

E. PLANT, MATERIALS AND WORKMANSHIP

7.50 Materials to be supplied by the Employer

- 7.50.1 Regarding supply of any materials by the Trustees to the Contractor, in accordance with the contract, the following conditions shall apply:
- a) The Contractor shall, at his own expense, arrange for transporting the materials from the Trustees' Store [store of Haldia Dock Complex, situated at Haldia], watching, storing and keeping them in his safe custody, furnishing of statement of consumption thereof in the manner required by the Engineer or his Representative, return of surplus and empty container to the Trustees' Stores, as per the direction of the Engineer or his Representative.
 - b) Being the custodian of the Trustees' materials, the Contractor shall remain solely responsible for any such materials issued to him and for any loss or damage thereof for any reason other than "Excepted Risks", the Contractor shall compensate the Trustees', in the manner decided by the Engineer, and shall, at no stage, remove or cause to be removed any such material from the site, without his permission.
 - c) The Trustees' materials will generally be supplied in stages and in accordance with the rate of progress of work, but, except for grant of suitable extension of completion time of work as decided by the Engineer, the Contractor shall not be entitled to any other compensation, monetary or otherwise, for any delay in the supply of Trustees' materials to him. The Contractor shall, however, communicate his requirement of such materials to the Engineer from time to time.
 - d) Unless stipulated otherwise in the contract, the value of the Trustees' materials issued to the Contractor shall be recovered from the Contractor's bills and/or any of his other dues, progressively, according to the consumption thereof on the work and/or in the manner decided by the Engineer or his Representative and at the rate(s) stipulated in the contract. These rates shall only be considered by the Contractor in the preparation of his bid/offer and these will form the basis of escalation/variation, if in future the Contractor is required to procure and provide any such material on the written order of the Engineer, consequent on the Trustees' failure to effect timely supply thereof.
 - e) If the Engineer decides that due to the Contractor's negligence, any of the Trustees' materials, issued to the Contractor, has been – (i) lost or damaged, (ii) consumed in excess of requirement and (iii) wasted by the Contractor in excess of normal wastage, then the

value thereof shall be recovered from the Contractor's bills, or from any of his other dues, after adding 19.25 % extra over the higher one of the followings:

- i) The issue rate of the materials at the Trustees' Stores, and
- ii) The market price of the material on the date of issue, as would be determined by the Engineer.

7.51 Contractor's arrangement for execution of the work

- 7.51.1 The Contractor will have to arrange and provide all types of materials, etc. [in line with the Technical Specification] throughout the execution of the contract.
- 7.51.2 KoPT will not take any responsibility regarding **non-availability** of any such materials for which Contractor is responsible as per contract. The Contractor shall have to assess the requirement of such materials and keep sufficient stock.
- 7.51.3 The Contractor shall have to provide all equipment, including tools, tackles, lifting machineries, air compressor, scaffolding arrangement, different vehicular transport, etc., necessary to execute the work.
- 7.51.4 All tools & machineries to be used by the Contractor should be suitable for the particular requirement (i.e. capacity should be adequate) and the same should be checked for fitness before use. They should maintain the said equipment properly to ensure their efficient working.
- 7.51.5 The Contractor shall, at their own costs and expenses, have to provide all labour, plant, haulage, transportation of plant and equipment to be used for executing the contract, all materials, stores, etc. (except the equipments & materials to be provided by KoPT, as per contract) required for efficiently carrying out the work to the satisfaction of the Employer.
- 7.51.6 The Contractor should use calibrated measuring & testing instruments and should also ensure revalidation of such calibration as and when required. In this regard, initially the Contractor shall have to submit a list of **measuring and testing instruments** (mentioning the period of validity of Calibration Certificates) to be used. The photocopies of the Calibration Certificates (including the revalidations) of the said measuring and testing instruments, shall have to be submitted to the Engineer.

7.52 Inspection and testing

- 7.52.1 The Engineer or his authorised Representative shall have, at all reasonable time, access to the Contractor's premises or work site or other premises [if a part of the work is being executed there or some **maintenance repair** work (during **Defect Liability Period**) is being done there] and shall have the power, at all reasonable time, to **inspect, examine and test** the **materials and workmanship**, as well as the **documents, equipment, tools, measuring & testing instruments**, as applicable, in connection with the instant contract (including **Defect Liability Period**).
- 7.52.2 The Engineer or his authorised Representative, on giving 7 (seven) days' notice, in writing, to the Contractor, setting out any ground of objections, in respect of the work, shall be at liberty to reject all or any material and/or workmanship in the subject of any of the said grounds of objection, which

are not in accordance with the contract.

- 7.52.3 Quality of materials, to be provided by the Contractor under this contract, should be as per the satisfaction of the Engineer. Whenever asked, the Contractor shall have to provide free sample for testing.
- 7.52.4 If found necessary, KoPT reserves the rights to get the materials inspected from a **Government or Government recognized Laboratory/Test House**.
- 7.52.5 In case of sub-letting to other Contractors or manufacturers or suppliers by the Contractor, the Engineer will reserve the right as follows:
- i) that inspection and / or testing will be carried at the Sub-contractor's works; or
 - ii) that inspection will be carried out at site; or
 - iii) that inspection will be waived, subject to the Contractor furnishing a certificate of compliance with specification by a competent authority recognised by national/international institutes.
- 7.52.6 The Employer may appoint a **Third Party Inspection Agency**, as detailed at SCC, at the cost of the Employer, for stage-wise technical inspection and certification of **materials & workmanship**, including **painting, erection, commissioning**, etc. [in connection with the contract job, in part or as a whole]. In that case The relevant Certificates shall be produced by the **Third Party Inspection Agency** to the Engineer or his authorised Representative.
- 7.52.7 The stage-wise technical inspection will be carried out by the representative of the Engineer [or **Third Party Inspection Agency**] based on the approved **Quality Assurance Plan (QAP) & Field Quality Assurance Plan (FQAP)** [considering the Technical Specification of the bidding documents].
- 7.52.8 The Contractor shall have to submit a **Quality Assurance Plan (QAP)** and a **Field Quality Assurance Plan (FQAP)**, based on the Technical Specification and other terms & conditions stipulated in the bidding documents. The **QAP & FQAP** shall be approved by the "**Engineer**".
- 7.52.9 In all cases where tests are required, within the purview of QAP & FQAP, whether at the premises of the Contractor or any Sub-contractor or elsewhere, the Contractor, except where otherwise specified, shall provide free of charges such labour, materials, electricity, fuel, water, stores, apparatus and instruments, as may reasonably be demanded, to carry out sufficiently such tests and shall, at all times, facilitate the Engineer or his Representative [and / or the Third Party Inspection Agency], to accomplish such testing.
- 7.52.10 The cost of all tests and / or analyses, within the purview of QAP & FQAP, effected at the Contractor's or Sub-contractor's works and on the site, shall be borne by the Contractor. The Contractor will be called upon to pay all expenses incurred by the Employer in respect of any work found to be defective or of inferior quality, adulterated or otherwise unacceptable.
- 7.52.11 If, during inspection by the **Third Party Inspection Agency [if appointed by KoPT]**, any material or test [within the purview of QAP & FQAP] fails to fulfil the contract conditions for **more than 2 (two) times**, any

additional amount charged by the Third Party Inspection Agency towards inspection of the same from the 3rd time onwards shall have to be borne by the Contractor. If the Contractor fails to make such payment to the **Third Party Inspection Agency**, the same shall be deducted from the bill(s) of the Contractor and paid to the **Third Party Inspection Agency**

7.52.12 Tests on completion:

On **completion of installation**, the contractor with give a **7 (seven) days'** notice to the Engineer, in writing (informing the date on which they will be ready to make the tests), before carrying out such tests, in accordance with and in the manner prescribed in the specifications. The procedure specified in SCC shall be followed in this respect.

7.52.13 Notwithstanding the fact that the materials or installations have passed the inspection, the Contractor is not relieved from his obligations to conform to the quality, workmanship, guaranteeing the performance, etc., as per the contract.

7.53 Contractor to replace materials/work not acceptable to the Engineer or his Representative

7.53.1 The Engineer or his Representative shall have the power to inspect any material and work at any time and to order at any time

- a) for removal from the site of any material, which, in his opinion, is not in accordance with the contract or the instruction of the Engineer or his Representative,
- b) for the substitution of proper and suitable materials, or
- c) the removal and proper re-execution of any work, which, in respect of material and workmanship, is not in accordance with the contract or the instructions of the Engineer.

The Contractor shall comply with such order at his own expense and within the time specified in the order. If the Contractor fails to comply, the Engineer shall be at liberty to dispose any such materials and re-do any work in the manner convenient to the Trustees by engaging any outside agency, at the risk and expense of the Contractor and after giving him a written prior notice of 7 (seven) days.

7.54 Removal of materials on completion

7.54.1 The Contractor shall, on completion of the contract or when directed by the Employer, shall have to remove all plant, equipment, tools, materials, temporary constructions, etc. and rubbish garbage, waste, which may have accumulated during the execution of the contract, other than those permanently used into the work, at Employer's site.

7.55 Workmanship and secrecy

7.55.1 The Contractor shall carry out the services in conformity with generally accepted norms and sound standards of Engineering. The Contractor shall be responsible for the technical soundness of the services rendered. In the event of any deficiency in those services, the Contractor shall promptly re-do the same, at no additional cost to the Employer.

- 7.55.2 The Contractor shall use all the documents, drawings and other data & information, of proprietary nature, received from the Employer, solely for the purpose of performing and carrying out the obligations on his part under the Agreement in the performance of the works for the project and maintain utmost secrecy, in this regard. The documents, drawings and other data & information, received from the Employer, shall not be used by the Contractor for any other purpose.

F. COMMENCEMENT, EXECUTION & COMPLETION OF WORK, HANDING OVER AND TAKING OVER

7.56 Preliminary time to commence work and maintenance of steady rate of progress

- 7.56.1 The Contractor shall commence the work within 7 (seven) days of the receipt of Engineer's letter informing acceptance of the Contractor's bid / offer by the Trustees or within such preliminary time as mentioned by the Contractor in the "Form of Tender" or the time accepted by the Trustees. The Contractor shall then proceed with the work with due expedition and without delay, except as may be expressly sanctioned or ordered by the Engineer or his Representative, time being deemed the essence of the contract on the part of the Contractor.

7.57 Contractor's site office

- 7.57.1 The Contractor shall provide and maintain a suitable office at or near the site to which the Engineer's Representative may send communications and instructions for use of the Contractor.

7.58 Contractor to observe Trustees' working hours

- 7.58.1 Unless specified otherwise in the contract or prior permission of the Engineer has been taken, the Contractor shall not execute the work beyond the working hours observed by the Engineer's Representative and on Sundays and Holidays observed in the Trustees' system, except in so far as it becomes essential on account of tidal work or for safety of the work. If the progress of the work lags behind schedule or the work has been endangered by any act or neglect on the part of the Contractor, then the Engineer or his Representative shall order and the Contractor, at his own expense, shall work by day and by night and on Sundays and Public Holidays. Any failure of the Engineer or his Representative to pass such an order shall not relieve the Contractor from any of his obligations. The Engineer's decision, in this regard, shall be final, binding and conclusive.

7.59 Contractor to supply all materials as per requirement of the Engineer or his Representative

- 7.59.1 Unless stipulated otherwise in the contract, all materials required for the work shall be procured and supplied by the Contractor with the approval of the Engineer or his Representative and subject to subsequent testing, as may be required by the Engineer or his Representative. The Engineer shall exercise his sole discretion to accept any such materials

7.60 Materials and works

- 7.60.1 Unless stipulated otherwise in the contract, all materials, workmanship and method of measurement shall be in accordance with the relevant Codes

(Latest Revision) of the Bureau of Indian Standards and the written instructions of the Engineer or his Representative. Where no specific reference is available in the contract, the material and workmanship shall be of the best of their respective kinds to the satisfaction of the Engineer.

7.61 Contractor to submit samples for approval

7.61.1 Samples shall be prepared and submitted for approval of the Engineer or his Representative, whenever required to do so, all at the Contractor's cost.

7.62 Contractor to seek approval of Engineer or his Representative before covering up any portion of work

7.62.1 No work shall be covered up and put out of view by the Contractor without approval of the Engineer or his Representative and whenever required by him, the Contractor shall uncover any part or parts of the work or make openings in or through the same as may be directed by the Engineer or his Representative from time to time and shall reinstate or make good those part of works thus affected, to the satisfaction of the Engineer, all at the cost of the Contractor.

7.62.2 The Trustees shall reimburse such cost, as determined by the Engineer, if the initial covering up was with prior written order of the Engineer or his Representative.

7.63 Contractor to suspend work on order from Engineer or his Representative

7.63.1 On a written order of the Engineer or his Representative, the Contractor shall delay or suspend the progress of the work, till such time the written order to resume the execution is received by him. During such suspension, the Contractor shall protect and secure the work to the satisfaction of the Engineer or his Representative. All extra expenses, in giving effect to such order, shall be considered by the Trustees, unless such suspension is:

- a) for removal from the site of any material, which, in his opinion, is not in accordance with the contract or the instruction of the Engineer or his Representative,
- b) otherwise provided for in the contract, or
- c) necessary by reason of some default on the part of the Contractor, or
- d) necessary by reason of climatic conditions on the site, or
- e) necessary for proper execution of the works or for the safety of the works or any part thereof.

7.63.2 The Engineer shall settle and determine such extra payment and/or extension of completion time to be allowed to the Contractor, as shall, in the opinion of the Engineer, be fair and reasonable.

7.63.3 If at any time, before or after commencement of the work, the Trustees do not require the whole of the work tendered for, the Engineer shall notify the same to the Contractor in writing and the Contractor shall stop further works in compliance of the same. The Contractor shall not be entitled to any claim for compensation for underived profit or for such premature stoppage of work or on account of curtailment of the originally intended work by reason of alteration made by the Engineer in the original

specifications, drawings, designs and instructions.

7.64 **Completion Certificate**

- 7.64.1 When the whole of the work [as detailed in **GCC Clause No. 7.65 (Completion period)**] has been completed to the satisfaction of the Engineer, the Contractor shall, within 21 (twenty one) days of submission of his application to the Engineer, be entitled to receive from him a certificate for completion of work as per the form furnished in **Section – XI**.

7.65 **Completion period**

- 7.65.1 All the jobs, as per contract, are to be completed within the period stipulated in the SCC.

7.66 **Taking over of the Contract job by KoPT**

- 7.66.1 The **Contract job** will be taken over by HDC, KoPT after completion of the works in accordance with the contract, having passed all the tests under “Tests on completion”.
- 7.66.2 However, the actual date of completion of the contract will be considered as per **GCC Clause No. 7.65 [Completion period]**.

7.67 **Defect Liability Period (DLP)**

- 7.67.1 “**Defect Liability Period**” shall mean the **Guarantee Period**, as specified in SCC.
- 7.67.2 During “**Defect Liability Period**” [as specified in SCC], the Contractor shall nominate 1 (one) competent, experienced and responsible technical person, to co-ordinate and execute all works to be attended by the Contractor, as per contractual obligations, without any extra cost to HDC, KoPT.
- 7.67.3 The Contractor shall be responsible for making good (including replacement of defective items, if required), with all possible speed, at their expense, any defect in or damage to any portion of the work, which may appear or occur after the Contract job has been taken over [as per GCC Clause No. 7.66 (Taking over of the Contract job by KoPT)] and before expiry of Defect Liability Period [as specified in **SCC**] and which arises either:
- a) from any defective materials, workmanship or design, or
 - b) from any act or omission of the Contractor done or omitted during the said period.

7.68 **Defects after taking over**

- 7.68.1 If any such defects shall appear or damage occur (as detailed in **7.67.3**), the Engineer shall forthwith inform the Contractor thereof, stating in writing the nature of defect or damage.

The provision of this clause shall apply to all replacements or renewals carried out by the Contractor to remedy defects and damage as if the said replacements and renewals had been taken over on the date they were completed to the satisfaction of Engineer. After the taking over, if the Contract job cannot be used (for the purpose for which it is intended),

during any period, by the reason of a defect or damage, the **Defect Liability Period** shall be extended accordingly, as specified in SCC.

7.68.2 If any such defect or damage be not remedied by the Contractor within a reasonable time, HDC, KoPT may proceed to do the work at the Contractor's risk and expense, but without prejudice to any other rights which HDC, KoPT may have against the Contractor in respect of such defects.

7.68.3 All inspection, adjustments, replacement or renewal carried out by the Contractor during the period referred in this clause shall be subject to the conditions of this contract, which shall be binding on the contractor in all respects during the **Defect Liability Period** and its extension, if any.

7.69 **Extension of completion period and liquidated damage**

7.69.1 **Extension of completion period:**

Should the quantum of extra or additional work of any kind or delayed availability of the Trustees' materials to be supplied as per contract or **Force Majeure** condition (as per **GCC Clause No. 7.86**) or other special circumstances, of any kind, beyond the control of the Contractor or any other reason not attributable to the Contractor [including hindrance at site of work, causes indicated as "**Excepted Risks**", etc.] cause delay in completing the work, the Contractor shall apply to the Engineer, in writing, for suitable extension of completion period, within **7 (seven) days** from the date of occurrence of the reason and the Engineer shall thereupon consider the stated reasons in the manner deemed necessary and shall either reject the application or determine and allow, in writing, the extension period as he would deem proper for completion of the work, with or without the imposition of "**Liquidated Damage**" (**GCC Clause No. 7.69.2** hereof) on the Contractor and his decision shall be binding on the Contractor. If an extension of completion period is granted by the Engineer, "**Liquidated Damage**" (**GCC Clause No. 7.69.2** hereof) shall apply from its date of expiry, if the work be not completed within the extended time, unless stated otherwise in the decision communicated by the Engineer, as aforesaid.

7.69.2 **Liquidated Damage:**

If the Contractor fails to complete the work within the stipulated dates [as per **GCC Clause No. 7.65 (Completion period)**] or such extension thereof, as communicated by the Engineer, in writing, the Contractor shall pay as compensation (**Liquidated Damage**) to the Trustees and not as a penalty, as per the following:

In case of handing over the Contract Job after the scheduled completion period, **Liquidated Damage @ ½% of the Contract Price [excluding GST]**, for every week or part thereof, beyond the scheduled date of completion, will be deducted from the Contractor's bill. Provided always the amount of such compensation shall not exceed **10 %** of the cost the Contract Price [excluding GST].

7.69.3 Without prejudice to any of their legal rights, the Trustees shall have the power to recover the said amount of compensation/damage, as per **GCC Clause No. 7.69.2** from any money due or likely to become due to the Contractor. The payment or deduction of such compensation/damage shall not relieve the Contractor from his obligation to complete the work or from

any of his other obligations/liabilities under the contract and in case of the Contractor's failure and at the absolute discretion of the Engineer, the work may be ordered to be completed by some other agency, at the risk and expense of the Contractor, after a minimum **3 (three) days** notice, in writing, has been given to the Contractor by the Engineer or his Representative.

G. CONTRACT PRICE , PAYMENT AND DEDUCTIONS

7.70 Contract Price

7.70.1 Price charged by the Contractor for the related services performed under the contract shall not vary from the rates accepted by the Employer, based on the bid/offer of the successful bidder and stated in the "Letter Of Acceptance", with the exception of any price adjustment, if provided for in the contract.

7.70.2 Changes **in statutory taxes & duties will be adjusted** time to time.

7.70.3 No claim whatsoever of the Contractor for their man & material resources remaining idle for any reason or for any other expenses incurred by them due to the flow of work not being continuous or for stoppage of work, will be entertained by the Employer.

7.71 Terms of payment

7.71.1 Payment of Goods & Services Tax (GST):

Amount of GST will be borne by HDC, KoPT on production of suitable document(s) by the Contractor.

7.71.2 Time of payment:

The Contractor shall have to submit **bills in triplicate** to the Engineer, in accordance with the stage-wise payments specified in **SCC**. In normal circumstances, payment of the bills, accompanied by **Inspection Certificates** & other relevant documents, duly recommended by the Engineer, will be passed within 30 (thirty) days from the date of receipt of such bills, if found in order.

7.71.3 Income Tax deduction:

Income Tax, if any, as per the relevant provision of the Income Tax Act, shall be **deducted at source** from amount payable to the Contractor.

7.71.4 No interest on account of delayed payments:

Any claim for interest will not be entertained by KoPT with respect to any delay on the part of KoPT for making payment, or for any dispute. The decision of the Engineer is final in such matters.

7.72 Extra expenses incurred by the Employer

7.72.1 Any extra expenses incurred in connection to the work by the Employer in the performance of the work owing to the neglect or omission on the part of the Contractor in any of the case mentioned in this contract shall be deducted from any sum due or which may thereafter become due to the Contractor or from any amount lying with them or under their control or they may be called upon to pay the amount of such extra expense to such person or persons as the Employer may appoint to receive the same and in

the event of the Contractor failing to make such payment, the said amount shall be recoverable from them in such manner as the Employer may determine,

7.73 Recovery of deducted amount

- 7.73.1 Without prejudice to any of their legal rights, the Trustees shall have the power to recover the amount of **DEDUCTION**, from any money due or likely to become due to the Contractor. Such payment or deduction shall not relieve the Contractor from their obligation to complete the work or from any of their other obligations / liabilities under the contract.

7.74 Variation and its valuation

- 7.74.1 The Engineer shall have the power to order the Contractor, in writing, to make any variation of the quantity, quality or form of the works or any part thereof that may, in his opinion, be necessary and the Contractor upon receipt of such an order shall act as follows:
- a) Increase or decrease the quantity of any work included in the contract.
 - b) Omit any work included in the contract.
 - c) Change the character or quality or kind of any work included in the contract.
 - d) Change the levels, lines, position and dimensions of any part of the work, and
 - e) Execute extra and additional work, of any kind, necessary for completion of the works.
- 7.74.2 No such variation shall, in any way, vitiate or invalidate the contract or be treated as revocation of the contract, but the value (if any) of all such variations, evaluated in accordance with the Engineer's sole decision, shall be taken into account and the contract price shall be varied accordingly.
- 7.74.3 Provided always that written order of the Engineer shall not be required for increase or decrease in the quantity of any work up to 15%, where such increase or decrease is not the result of any variation order given under this clause but is the result of the quantities exceeding or being less than those stated in the "Price Schedule". Provided also that verbal order of variation from the Engineer shall be complied with by the Contractor and the Engineer's subsequent written confirmation of such verbal order shall be deemed to be an order in writing within the meaning of this clause.
- 7.74.4 The Contractor shall not be entitled to any claim of extra or additional work, unless they have been carried out under the written orders of the Engineer.
- 7.74.5 The Engineer shall solely determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra work done or work omitted by his order.
- 7.74.6 All extra, additional or substituted work done or work omitted by order of the Engineer shall be valued on the basis of the rates and prices set out in the contract, if in the opinion of the Engineer, the same shall be applicable. If the contract does not contain any rates or prices directly applicable to the extra, additional or substituted work, then the Engineer may decide the suitable rates on the basis of "Schedule of Rates" (including surcharge in force at the time of acceptance of bid), if any, adopted by the Trustees with

due regard to the accepted contractual percentage, if any thereon. In all other cases, the Engineer shall solely determine suitable rates in the manner deemed by him as fair and reasonable and his decision shall be final, binding and conclusive.

- 7.74.7 If the nature or amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that, in the opinion of the Engineer, the rate of prices contained in the contract for any item of the works or the rate as evaluated under **GCC Clause Nos. 7.74.5 & 7.74.6**, is by reason of such omission or addition rendered unreasonable or in-applicable, the Engineer shall fix such other rate or price as he deems proper and the Engineer's decision shall be final, binding and conclusive.

H. TERMINATION BY EMPLOYER

7.75 Notice to correct

- 7.75.1 If the Contractor fails to carry out any of their obligations under the contract, the Engineer may give notice to the Contractor, requiring them to make good the failure and to remedy the same within a specified reasonable time.

7.76 Termination by Employer

- 7.76.1 The Employer shall be entitled to terminate the contract if:

- a) the Contractor fails to comply with **GCC Clause No. 7.20 [Performance Guarantee / Security Deposit]**
or
with a notice under **GCC Clause No. 7.75 [Notice to correct]**,
- b) the Contractor **abandons** the work, or **repudiates** the contract, or otherwise plainly demonstrates the intention not to continue performance of their obligations under the contract,
- c) the Contractor, without reasonable or lawful excuse under this contract,
 - i) fails to proceed with the work, **within 14 days** from the scheduled date for commencement of work, in accordance with **GCC Clause No. 7.56 [Preliminary time to commence work and maintenance of steady rate of progress]**,
 - ii) keeps the work suspended for **at least 14 days**, despite receiving Engineer's written notice to proceed with the work,
or
 - iii) fails to comply with a notice issued regarding rejection of material(s)/work and/or remedial work, **within 28 days** after receiving it,
- d) the Contractor **assigns/sub-contracts the whole of the work**
or
sub-contracts any portion of the work, without the required consent, in line with **GCC Clause No. 7.22**.

- e) the Contractor becomes **bankrupt** or **insolvent**, goes into liquidation, have a receiving or administrative order made against them, compounds with their creditors, or carries on business under a receiver, trustees or manager for the benefit of their creditors, or if any act is done or event occurs which (under applicable laws) has a similar effect to any of these acts or events,
- f) the Contractor gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward,
 - i) for doing or forbearing to do any action in relation to the contract, or
 - ii) for showing or forbearing to show favour or disfavour to any person in relation to the contract,

or, if any of the Contractor's personnel, Agents or Sub-contractors gives or offers to give (directly or in directly) to any person any such inducement or reward as is described in this **sub-paragraph (f)**. However, lawful inducement and reward to the Contractor's personnel shall not entitle termination
- g) the Contractor fails to execute the work in accordance with the contract

or

persistently or flagrantly neglects to carry out their obligations under the contract.
- h) the Contractor fail to make payment of wages to their personnel in relation to this contract,
- i) the Contractor fails to carry out the work satisfactorily (as stated in these bidding documents or otherwise decided by the Engineer) or may not be able to complete the work within the agreed period on account of Contractor's lapses.
- j) any accident occurs due to improper way of working by the Contractor's personnel, or
- k) any misconduct done by Contractor's personnel (including that of Agents or Sub-contractors) to KoPT's employees.

In any of these event or circumstances, the Employer may, upon giving a **minimum 14 days' notice** [communicated by the Engineer] to the Contractor, **terminate the contract** and expel the Contractor from the site, without being liable for any compensation to the Contractor. However, in case of **sub-paragraph (e) or (f)**, the Employer may, by notice [communicated by the Engineer], terminate the contract immediately.

The Employer's election to terminate the contract shall not prejudice any other rights of the Employer, under the contract or otherwise.

- 7.76.2 Upon receipt of the letter of termination of work, which may be issued by the Engineer on behalf of the Employer, the Contractor shall have to leave the site of work and deliver any **required goods**, all **Contractor's documents**, and other **design documents**, made by or for them, all the **Trustees' tools, plant and materials** issued to them, at the place to be ascertained by the Engineer, **within 7 days** of receipt of such letter.

However, the Contractor shall use their best efforts to comply immediately with any reasonable instructions included in the notice

- i) for the assignment of any Sub-contractor,
and
- ii) for the protection of life or property or for the safety of the equipment/work.

The Contractor shall not be released from any of their obligations or liability under the contract and the rights & authorities conferred on the Employer and Engineer, by the contract, shall not be affected.

- 7.76.3 Upon such termination of work, the Employer shall have the power to complete the work by **themselves** and/or through **any other agency** at the **Contractor's risk & expense** and the Contractor shall be debited **any sum or sums that may be expended in completing the work beyond the amount that would have been due to the Contractor, had they duly completed the whole of the work in accordance with the contract.**

The Employer or such other agency may use, for such completion, so much of the Contractor's documents, other design documents, made by or on behalf of the Contractor, Contractor's equipment, temporary work, plant & materials, as they think proper.

Upon completion of the work, or at such earlier date, as the Engineer shall give notice that the Contractor's equipment and temporary work will be released to the Contractor at or near the site, the Contractor shall remove or arrange removal of the same from such place without delay and at their risk & cost. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall be paid to the Contractor.

7.77 Valuation at date of termination

- 7.77.1 As soon as practicable after a notice of termination under **GCC Clause No. 7.76 [Termination by Employer]**, has taken effect, the Engineer shall proceed in accordance with **GCC Clause No. 7.19 [Determinations]** to agree or determine the value of the work, goods & Contractor's documents, and any other sums due to the Contractor for work executed, in accordance with the contract. The value of such work (executed in accordance to the Contract) shall be determined based on measurements of actual work done and approved rate(s), as per contract or other rates, as decided by the Engineer. The Engineer's decision, in such case, shall be final, binding and conclusive.

7.78 Payment after termination

- 7.78.1 After a Notice of termination, under **GCC Clause No. 7.76 [Termination by Employer]** has taken effect, the Employer may
- a) give notice to the Contractor, indicating the particulars, for which Employer is entitled to any payment under any Clause or otherwise in connection with the contract, and or any extension of the **Defect Notification Period.**

However , Notice is not required for payments due under **GCC**

Clause No. 7.26 [Supply of water and Electricity], under **GCC Clause No. 7.27 [Use of ground and land/covered space for Contractor's establishment]**, or for other services requested by the Contractor,

- b) withhold further payments to the Contractor until the cost of execution, completion and remedying of any defects, damage, and all other costs incurred by the Employer, have been established, and / or
- c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the work, after allowing for any sum due to the Contractor under **GCC Clause No. 7.77 [Valuation at date of termination]**. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

7.79 Employer's entitlement to termination for convenience

- 7.79.1 The Employer, by notice [communicated by the Engineer] sent to the Contractor, may terminate the Contract, in whole or in part, at any time **for Employer's convenience**. Such termination shall take effect **28 days** after the date on which the Contractor receives this notice or the Employer returns the Performance Guarantee. The notice of such termination shall specify that termination is for **Employer's convenience**, the extent to which performance of the Contractor under the contract is terminated, and the date upon which such termination become effective.

The Employer shall not terminate the contract under this Sub-clause in order to execute the work exclusively by themselves or to arrange for work to be executed exclusively by another Contractor or to avoid a termination of the contract by the Contractor under **GCC Clause No. 7.82 [Termination by Contractor]**.

After such termination, the Contractor shall proceed in accordance with **GCC Clause No. 7.83 [Cessation of work and removal of Contractor's equipment]** and shall be paid in accordance with **GCC Clause No. 7.90 [Optional termination, payment and release]**.

7.80 Corrupt or fraudulent practices

- 7.80.1 If the Employer determines that the Contractor has engaged in **corrupt, fraudulent, collusive, coercive, or obstructive** practices, in competing for or in executing the Contract, then the Employer may, after giving **14 days notice** to the Contractor, terminate the Contractor's employment under the Contract and expel them from the Site, and the provisions of **GCC Clause Nos. 7.75 to 7.78** shall apply as if such expulsion had been made under **GCC Clause No. 7.76 [Termination by Employer]**.

Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the work, then that employee shall be removed in accordance with **GCC Clause No. 9.21 [Contractor's personnel and Contractor's representative]**.

For the purposes of this clause:

- i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the

actions of another party;

- ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v) “obstructive practice” is deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede the Employer investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and / or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation.

I. SUSPENSION AND TERMINATION BY CONTRACTOR

7.81 Contractor’s entitlement to suspend work

- 7.81.1 The Contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer **within 28 days** after the expiry of the time stated in **GCC Clause No. 7.71 [Terms of payment]** within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 28 days’ prior notice to the Employer, with a copy to the Engineer, suspended work or reduce the rate of work.
- 7.81.2 If the Contractor subsequently receives the due payment (as described in the relevant Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.
- 7.81.3 If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Clause and thereby suffers delay, the Engineer shall, after due consultation with the Contractor, determine any extension of time or minimum criteria for satisfactory performance, to which the Contractor is entitled and shall notify the Contractor accordingly.

7.82 Termination by Contractor

- 7.82.1 The Contractor will be entitled to terminate the Contract if:
 - a) the Contractor does not receive the reasonable evidence within **42 days after** giving notice under **GCC Clause No. 7.81 [Contractor’s entitlement to suspend work]** in respect of a failure of the Employer to pay the Contractor the amount due,
 - b) the Employer obstruct or refuse any required approval to the issue of any such certificate, which is essentially required for further progress of the work without notifying any reason for such

obstruction or refusal for a unreasonably long period of time, or

- c) the Employer become bankrupt or insolvent, go into liquidation, or enter into composition with the creditors,

or

- d) the Employer give notice to the Contractor that for unforeseen reasons, due to economic dislocation, it is impossible for them to continue to meet their contractual obligations.

In any of these events or circumstances, the Contractor may, upon giving **28 days' notice** to the Employer (with a copy to the Engineer), terminate the Contract.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

7.83 Cessation of work and removal of Contractor's equipment

7.83.1 After a notice of termination under **GCC Clause No. 7.79 [Employer's entitlement to termination for convenience]**, **GCC Clause No. 7.82 [Termination by Contractor]** or **GCC Clause No. 7.90 [Optional termination, payment and release]** has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may be necessary and instructed by the Engineer for the purpose of making safe or protecting those parts of the work already executed and any work required to leave the site in a clean and safe condition.
- b) hand over all construction documents, Plant and Materials for which the Contractor has received payment.
- c) hand over those other parts of the Works executed by the Contractor up to the date of termination
- d) remove all Contractor's equipment, which is on the site and repatriate all their staff and labour from the site.

and

- e) remove all other goods from the site, except as necessary for safety, and leave the site.

Any such termination shall be without prejudice to any other right of the Contractor under the contract.

7.84 Payment on termination

7.84.1 After a notice of termination under **GCC Clause No. 7.82 [Termination by Contractor]** has taken effect, the Employer shall promptly:

- a) return the Performance Guarantee / Security Deposit to the Contractor
- b) pay the Contractor in accordance with **GCC Clause No. 7.90 [Optional termination, payment and release]** ,

and

- c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

J. INSURANCE

7.85 General requirements for insurances

- 7.85.1 The contractor during the contract period shall provide for insurance of 110% of the contract value including manning upto the commissioning and taking over of the installation.

K. FORCE MAJEURE

7.86 Definition of Force Majeure

- 7.86.1 In this clause “**Force Majeure** “ means an exceptional event or circumstance

- a) which is beyond the control of the Employer and the Contractor,
- b) which such party (Employer / Contractor) could not reasonably have provided against before entering into the contract,
- c) which, having arisen, such party could not reasonably have avoided or overcome,
and
- d) which is not attributable to other party.

Force Majeure may include, but not limited to, exceptional events or circumstances of the kind listed below, so long as conditions a) to d) above are satisfied:

- i) **war, hostilities** (whether war be declared or not) , **invasion, act of foreign enemies;**
- ii) **rebellion, terrorism, sabotage by persons other than the Contractor’s personnel, revolution, insurrection , military or usurped power, or Civil War;**
- iii) **riot, commotion, disorder, strike or lockout by persons other than the Contractor’s personnel;**
- iv) **munitions of war, explosive materials, ionisation radiation or contamination by radio-activity,** except as may be attributable to the Contractor’s use of such munitions, explosives, radiations or radio-activity;
- v) **natural catastrophes** such as **earthquake, tsunami** (caused by earthquake at the ocean bed),**fire, floods, hurricane, cyclone, typhoon or volcanic activity,**
and

- vi) **pressure waves** caused by air craft or other aerial devices travelling at sonic or supersonic speed at the site of the work.

7.87 **Notice of Force Majeure**

7.87.1 If a party is or will be prevented from performing its obligations under the Contract by Force Majeure, then it shall give notice to the other party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given **within 48 (forty eight) hours** of the alleged beginning of the relevant event or circumstance constituting Force Majeure, giving full particulars and satisfactory evidence.

The party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

Notwithstanding any other provision of this clause, Force Majeure shall not apply to obligations of either party to make payments to the other party under the contract.

7.88 **Duty to minimise delay**

7.88.1 Each party shall at all times use all reasonable endeavours to minimise any delay in the performance of the contract as a result of Force Majeure.

A Party shall give notice to the other party when it ceases to be affected by the Force Majeure, **within 48 (forty eight) hours** of such ending.

7.89 **Consequences of Force Majeure**

7.89.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under **GCC Clause No. 7.87 [Notice of Force Majeure]**, and suffers delay and/or non-performance as per the contractual obligations, by reason of such Force Majeure, the Contractor shall be entitled, subject to **GCC Clause No. 7.91 [Engineer's decision]**, to:

- a) an extension of time for any such delay, if completion is or will be delayed, under **GCC Clause No. 7.69 [Extension of completion period and liquidated damage]**,
and
- b) non-imposition of penalty due to non-performance as per the contractual obligations.

After receiving this notice, the Engineer shall proceed in accordance with **GCC Clause No. 7.19 [Determinations]** to agree or determine these matters.

7.90 **Optional termination, payment and release**

7.90.1 If the execution of all the work in progress is prevented for a **continuous period of 84 days** by reason of **Force Majeure** of which notice has been given under **GCC Clause No. 7.87 [Notice of Force Majeure]**, or for **multiple periods which total more than 140 days** due to the same notified Force Majeure, then either party may give to the other party a notice of termination of the contract. In this event, the **termination shall take effect 7 days after the notice is given**, and the Contractor shall proceed in accordance with **GCC Clause No. 7.83 [Cessation of work and removal**

of Contractor's equipment].

Upon such termination, the Engineer shall determine the value of the work done and issue a payment certificate which shall include:

- a) The amounts payable for any work carried out for which a price is stated in the Contract;
- b) the cost of plant and materials ordered for the work which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery. Such Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer and the Contractor shall place the same at the Employer's disposal;
- c) any other cost or liability, which in the circumstances was reasonably incurred by the Contractor in the expectation of completing the Works;
- d) the **reasonable Cost** of removal of temporary work and Contractor's equipment from the site and the return of such items to the Contractor's premises,

and

- e) the reasonable cost of repatriation of the Contractor's staff and labour employed wholly in connection with the work at the date of such termination.

L. CLAIMS, DISPUTES AND ARBITRATION

7.91 Engineer's decision

7.91.1 If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of, the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after repudiation or other termination of the contract, including any dispute as to any opinion, instruction, determination certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred, in writing, to the Engineer within **30 (thirty) days**, with a copy to the other party. Such reference shall state that it is made pursuant to this clause. No later than the **thirtieth day** after the day on which he received such reference, the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this clause.

Unless the contract has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the works with all due diligence and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same shall be revised, as hereinafter provided, in an amicable settlement or an arbitral award.

If either the Employer or the Contractor be dissatisfied with any decision of the Engineer, or if the Engineer fails to give notice of his decision on or before the **thirtieth day** after the day on which he received the reference, then either the Employer or the Contractor may, on or before the **seventieth day** after the day on which he received notice of such decision, or on or before the seventieth day after the day on which the said period of thirty

days expires, as the case may be, give notice to the other party, with a copy for information to the Engineer, of his intention to commence arbitration, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to **GCC Clause No. 7.94 (Failure to comply with Engineer's decision)**, no arbitration in respect thereof may be commenced unless such notice is given.

If the Engineer has given notice of his decision as to a matter in dispute to the Employer and the Contractor and no notice of intention to commence arbitration as to such dispute has been given by either the Employer or the Contractor on or before the **seventieth day** after the day on which the parties received notice as to such decision from the Engineer, the said decision shall become final and binding upon the Employer and the Contractor.

7.92 Amicable settlement

- 7.92.1 Where notice of intention to commence arbitration as to a dispute has been given in accordance with **GCC Clause No. 7.91 (Engineer's decision)** above, both parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both parties agree otherwise, arbitration may be commenced on or **after the fifty-sixth day after the day on which a notice of intention to commence arbitration of such dispute was given**, even if no attempt at amicable settlement thereof has been made.

7.93 Arbitration

- 7.93.1 Any dispute in respect of which
- a) the decision, if any, of the Engineer, has not become final and binding pursuant to **GCC Clause No. 7.91 (Engineer's decision)** and
 - b) amicable settlement has not been reached within the period stated in **GCC Clause No. 7.92 (Amicable settlement)**,

shall be finally settled by arbitration, in accordance with the **Arbitration and Conciliation Act, 1996 (considering its amendment in 2015)** or any statutory modification or re-enactment thereof and rules made there under and for the time being in force. The **Arbitration Tribunal** shall be composed as per provision of the **Arbitration and Conciliation Act, 1996 (considering its amendment in 2015)** or any statutory modification or re-enactment thereof and rules made there under and for the time being in force.

- 7.93.2 In connection with the instant contract:
- a) the place of arbitration shall be **Kolkata or Haldia**, West Bengal, India,
 - b) the arbitration shall be conducted in **English language**,
and
 - c) the fees, if any, of the Arbitrators, if required to be paid before the award of work in respect to disputes is made and published, shall be shared equally by each of the parties

- 7.93.3 The Arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion, valuation or decision of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the parties and the Engineer from being called as a witness and giving evidence before the Arbitrators on any matter, whatsoever, relevant to the dispute.
- 7.93.4 Neither party shall be limited in the proceedings before such Arbitrators to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision pursuant to **GCC Clause No. 7.91 (Engineer's decision)**. No such decision shall disqualify the Engineer from being called as a witness and giving evidence before the Arbitrators on any matter whatsoever relevant to the dispute.
- 7.93.5 Arbitration may be commenced prior to or after completion of the works, provided that the obligations of the Employer, the Engineer and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the works.

7.94 Failure to comply with Engineer's decisions

- 7.94.1 Whether neither the Employer nor the Contractor has given notice of intention to commence arbitration of dispute within the period stated in **GCC Clause No. 7.91 (Engineer's decision)** and the related decision has become final and binding, either party may, if the other party fails to comply with such decisions, and without prejudice to any other rights it may have, refer the failure to arbitration, in accordance with **GCC Clause No. 7.93 (Arbitration)**. The provision of **GCC Clause No. 7.91 (Engineer's decision)** and **GCC Clause No. 7.92 (Amicable settlement)** shall not apply to any such reference.

7.95 Progress of work not to be interrupted

- 7.95.1 The Contractor must, at all the times, fulfil their obligations under the contract and shall not slow down or stop the progress of work during the period any dispute is under settlement either through reference to the Engineer or through arbitration, pursuant to the preceding clauses. Even if the works to be carried out during such a period involve matters under dispute, the Contractor shall nevertheless proceed with the works as per direction of the Engineer, pending settlement of the dispute. Failure of the Contractor, in this respect, shall constitute default on their part and render them liable to actions under the provisions of **GCC Clause No. 7.76 [Termination by Employer]**.

SECTION - VIII

SCOPE OF WORK AND SPECIAL CONDITIONS OF CONTRACT (SCC)

A. SCOPE OF WORK

1. PREAMBLE:

Haldia Dock Complex (HDC) is constructing a riverside jetty viz. Outer Terminal -II (OT-II) for handling 40,000 dwt size vessels carrying different liquid cargo including Propane, Butane and LPG. HDC would also like to install fire-fighting system as per OISD -156 standard at their up-coming jetty. Installation and commissioning of such fire fighting system should be carried out along with the progress of work related to construction of Off-shore and on-shore civil construction of OT-II. Tentative scheme of OT-II fire fighting system is enclosed.

The scope of work of the contractor shall cover design, detail engineering, supply of all materials, construction, fabrication, installation / erection, painting, testing, commissioning including obtaining certificates from Statutory Authorities (viz. OISD, PESO etc.) related to complete Fire protection system for upcoming outer terminal - II, as per detailed scope of work, design basis, standards, specifications, applicable local and international codes etc. and handing over the system to HDC.

The system broadly consist of followings but shall not be limited to following (supply of all material is in the scope of the contractor):

- (i) Firewater system for proposed area consists of fire water pumps along with piping, tower monitor, jumbo nozzle and water curtain as per OISD -156 standard.
- (ii) Hydraulic analysis of existing firewater network for checking / verifying the pipe size at permissible velocity in pipes and pressures require for operating the required fire fighting equipment at various operating condition of the system.
- (iii) Design, detail engineering, supply, erection and installation of all fire water pumps (Main pumps: Engine driven), pipes, valves, pipe fittings, operating platform, operating and control system including electrical and instrument work.
- (iv) Design, detail engineering, supply, erection and installation of EOT crane, Generator and Compressor all complete.
- (v) Supply of Foam pumps, pipes, pipe fittings, operating and control system and consumables for foam system for proposed firewater system of the jetty.
- (vi) Design, supply and erection of Tower monitor with access ladder, jumbo nozzle with access ladder, water curtains nozzles for loading platform and commissioning of the same including electrical and instrument work all complete.
- (vii) Fabrication, erection / installation, testing / hydro testing, commissioning of firewater network system and foam network.
- (viii) Supply and installation all instrument w.r.t. fire water system including testing and commissioning all complete.
- (ix) Supply and installation of remote control panel for the fire fighting system.
- (x) The bidders will have to quote online as per BoQ items, considering total project cost including performance test and warranty obligations.

- (xi) The contractor would be responsible for civil foundation off all equipment supplied and erected by him. In this regard they will have to maintain close co-ordination with the civil contractors.
- (xii) Any other specific protection required or indentified during detailed engineering.

2. DESIGN:

Technical specification mentioned in the tender document is only indicative in nature. The successful bidder (contractor) will have to carryout design for all components, accessories and entire control system for successful execution of the project to achieve specified output as per OISD-156.

Design should be based on 40,000 dwt size vessels carrying different liquid cargo including Propane, Butane and LPG.

The contractor will have to furnished 'water demand analysis' showing total water required, keeping the specified equipment under the fire-fighting system in running condition and the equipment support for supply of such quantity of water. This scheme should be in line with the statutory requirement of OISD & PESO.

3. BAR-CHART:

Within 30 days from the date of placement of order the contractor should submit bar-chart showing time line for all individual activities starting from design upto handing over and warrantee maintenance. This should be done in consultation with the progress of work related to civil construction of OT-II.

4. DRAWING:

The contractor will have to submit all drawings, manuals and specifications of different equipment and components of the fire-fighting system to facilitate inspection and certification. During taking-over, he will have to submit the 'as build' drawings of different equipment and components of the fire-fighting system.

5. BASIC LAYOUT:

The contractor will have to submit the following technical documents a) Scheme of the system, b) Water demand analysis c) Control system planning d) Clear layout of the system, showing all major components, indicating their individual capacity, e) General Arrangement drawing of major components, f) technical literature etc.

Within 30 days from the date of placement of order, the contractor should submit detail foundation work required for installation of various fire-fighting equipments like tower monitor, base monitor, water curtain, engine, pump etc. Proper execution of all such foundation work to be carried out by the contractor engaged for fire-fighting work.

Within 30 days from the date of placement of work order, the contractor will have to submit complete layout of the fire-fighting system showing all individual components and control system. Such layout should be prepared in consultation with the contractor engaged

for construction of the jetty, to avoid possibility of any structural obstruction during execution of the fire-fighting system.

6. SUPPLY OF MATERIALS AND MANPOWER:

For successful execution of the project, the contractor would make all arrangement for supply of material and manpower, some of which are (this is only indicative and not exhaustive) equipment, appliances & necessities for work like tools & tackles, machineries for grit-blasting & spray painting, lifting appliances, equipments for transport, welding transformers/generators, welding accessories, gas cutting sets, safety appliances, materials for scaffolding, nuts, bolts and washers, structural steel, consumables like electrodes, gas, paints, thinners, jute, oil, grit for blasting, skilled and unskilled manpower, supervisors, engineers etc. However the intending bidder will have to quote price considering supply, erection, commissioning of the entire project.

7. STORAGE OF SUPPLIED ITEMS:

The contractor will have to arrange for proper storage of all equipment, accessories, consumables etc. at Haldia site at his own cost and arrangement. All such items would remain under the custody of the contractor till handing over of the system to HDC.

8. CO-ORDINATION RELATED TO CIVIL WORK:

The contractor engaged for fire-fighting system should maintain close co-ordination with the contractor engaged for construction of jetty, so that both the work can proceed simultaneously without any dispute. However, in case any dispute between the contractor engaged for civil construction and the contractor engaged for fire-fighting work, the decision of HDC management should be treated as final and binding to both the contractors.

9. CO-ORDINATION RELATED TO ELECTRICAL WORK:

The contractor will have to provide all electrical items, electrical connections, control system (local and remote) for successful running of the fire-fighting system. Considering all electrical apparatus, the contractor will have to declare total power requirement (including peak load) to run the fire-fighting system. Accordingly, he will have to take power connection from the nearest substation through cable. In this regard, he will have to co-ordinate with the contractor engaged for electrical substation related work.

10. TESTING, TRIAL RUN AND COMMISSIONING:

After installation of the fire-fighting system, testing and trial run should be carried out by the contractor in presence of representative of HDC / PMC / third party inspection agency. All equipment, pipelines, control system to be tested to verify their specified performance. Testing to be carried out in line with procedure indicated in the technical specification. Testing and trial run to be carried out continuously for at least 30 (thirty) days. In case of successful trial run, declared by representative of HDC / PMC / third party inspection agency, the said fire-fighting system would be considered as commissioned. However, commissioning activities to be carried out in line with the procedure indicated in the technical specification. Foam to be supplied by the contractor for trial run purpose, however, the contractor is liable to handover empty foam tank to HDC.

11. CERTIFICATION:

Project monitoring, quality assurance, inspection of materials and installation, testing and commissioning etc. will be carried out by suitable PMC to be appointed by KoPT. The contractor should provide quality assurance plan, schedule of inspection for all materials and work. He should also arrange for stage-wise inspection and necessary certification of all materials and work including commissioning and handing over. The contractor will also have to co-ordinate

with the statutory bodies and arrange for stage-wise inspection, as per requirement of the said authorities and obtain certification of the entire fire-fighting system of OT-II from statutory authorities viz. OISD, PESO etc. at their own cost and arrangement.

12. HANDING OVER OF FIRE-FIGHTING SYSTEM:

After the successful commissioning, the entire fire-fighting system to be handed over to HDC by the contractor in working condition along with certificates obtained from statutory authorities viz. OISD, PESO etc.

13. Permit charges:

Permit Charges for workmen, vehicle etc. for execution of job inside Dock area would be payable by the Contractor as per scale of rate of Kolkata Port Trust. The existing charges for manpower and vehicle would be as follows:

Sl. No	Description	Rate in (In INR)
1	Dock Permit per person	8.50 per daily permit (Maximum 12 hrs. validity). 229.50 per monthly permit 690.25 per quarterly permit 2295.00 per annual permit 3672.00 per biennial permit
2	Dock Permit per vehicle and circular permit for vehicle carrying ship's gear and stores (inclusive of overnight stay).	42.53 per daily permit 1148.31 per monthly permit 2296.62 per quarterly permit 4593.24 per annual permit
3	Dock Permit for mobile crane/ Reach Stacker/ Toplifter (inclusive of overnight stay)/ Dumper / Payloader	170.10 per daily permit 4592.70 per monthly permit 9184.40 per quarterly permit 18370.80 per annual permit
4	Dock Permit for cart (inclusive of overnight stay).	17.00 per daily permit 459.99 per monthly permit 1239.30 per quarterly permit 4461.68 per annual permit.

SCOPE MATRIX

Sl. No.	Item	Basic requirement & layout	Design, Engineering & preparation	Supply of all material	Erection and construction including	Testing, commissioning and certification
1.	Preparation of detail engineering of the fire-fighting system and getting the same approved by HDC or their authorized representative.	√	√	√	√	√
2.	Fire-fighting pump house	√	X	X	X	X
3.	Fire water reservoir	√	X	X	X	X
4.	Fire-fighting control office	√	X	X	X	X
5.	Electrical substation	√	X	X	X	X
6.	Diesel driven main pumps	√	√	√	√	√
7.	All fire fighting equipments viz. Tower monitors, Jumbo nozzles, water curtain etc.	√	√	√	√	√
8.	Entire remote control system including instrumentation and electrical and electronic equipments	√	√	√	√	√
9.	Portable fire extinguisher	√	√	√	√	√
10.	EOT crane.	√	√	√	√	√

Legend: √ - Means in the scope of fire water package contractor.
X - Means in the scope of others.

B. SPECIAL CONDITIONS OF CONTRACT

1.0 GENERAL:

These provisions though given in a separate section are part of the tender documents which must be read as a whole, the various sections being complementary to one another and are to be taken as mutually explanatory. These provisions shall be read in conjunction with the other parts of the tender documents viz. General Conditions of Contract, Notice Inviting E-Tenderers, Instructions to Bidder, Technical Specifications, Drawings, Bill of Quantities and other documents forming part of the Contract. In case of any discrepancy or ambiguity in the documents, the order of precedence of the documents as stated below will apply. In particular, these provisions will over ride those in the General Conditions provided there is discrepancy between them.

CORRELATION AND ORDER OF PRECEDENCE OF TENDER DOCUMENTS:

If the stipulations in the various tender documents be found to be at variance in any respect, one will override others (but only to the extent these are at variance) in the order of precedence as given in the list below, i.e. any particular item in the list will take precedence over all those placed lower down in the list.

Order letter.

Bill of Quantities.

Drawings.

Technical Specifications of work.

Special Conditions of Contract.

General Conditions of Contract.

In case of any dispute, question or difference either during the execution of the work or any other time as to any matter or thing connected with or arising out of this Contract, the decision of the Sr. Dy. Manager (P&E) Haldia Dock Complex, thereon shall be final and binding upon all parties.

3.0 PRICE BASIS:

The bidder will have to quote online as per BoQ of the tender. However, this BoQ is indicative only and not exhaustive. The price would include supply, delivery, erection, testing, commissioning, certification, handing over, warranty obligation etc. considering all items related to the entire project. This price should include all taxes and duties except GST. Percentage of applicable GST should be mentioned separately. GST would be reimbursed by HDC against compliance GST norms. Quoted price should remain firm till end of the contract.

4.0 TIME OF COMPLETION:

The work is to be completed within **24 (Twenty-four) months** from the date of placement of work order. Execution of work to be carried out in line with the progress of civil construction.

6.0 GUARANTEE PERIOD:

The entire fire-fighting system should be guaranteed for a period of **24 (twenty four) months** from the date of commissioning. This guarantee will cover all design defects, poor materials, bad workmanship, poor performance of equipment & machineries, non-achievement of output etc. The contractor will have to repair / replace the concern item /spare parts/ components etc. immediately at free of cost within guarantee period.

7.0 Guarantee Certificate: The contractor will have to submit guarantee certificate as per the guarantee clause after completion of the project.

8.0 PAYMENT TERMS:

Payment will be made based on accepted rates of the bill of quantities. Monthly one bill would be accepted.

- i) 70% Payment against each item will be made against supply of respective item at site and submission of bills along with Custodian Certificate and other relevant documents like Inspection Reports, Challans, etc.
- ii) 20% Payment against each item will be made against installation of the respective item and submission of bills along with Installation Certificate.
- iii) 10 % Payment against each item will be made against Testing, successful commissioning, and taking over the commissioned job by KoPT, obtaining statutory certificate by the contractor and submission of bills, along with Job Completion Certificate.

9.0 ACCESS TO THE SITE:

By Road:

All-weather hard top road approachable from N.H. 41 and State Highway exist right up to the area of work.

By Rail:

S. E. Railway Branch Line connects Haldia with the Panskura Railway Station.

10.0 Site Visit:

The Bidder shall inspect the site of work and thoroughly familiarize himself with the nature of work, site conditions, and access to the site and location before submission of the tender. He should contact the Sr. Dy. Manager (P&E), Haldia dock Complex at his office at Chiranjibpur, Haldia for collecting information about the site before submission of the tender. No excuse will be entertained afterwards on the above ground. In case any part of the site cannot be handed over to the successful Bidder in time, no compensation for loss of labour or any other cause nor any claim will be entertained by the Trustees. Suitable extension of time shall, however, be granted to the successful Bidder on that ground if applied for.

11.0 SITE FEATURES & OPERATIONS:

The off-shore work is to be carried out on the river in the estuarine region of the River Hooghly where strong tidal currents prevail and there is substantial tidal fluctuation in water level.

The work shall have to be executed by the successful bidder without hampering normal operational activities in the area. The working hours may have to be adjusted as the situation demands. No claim for idle labour on this account shall be entertained.

During execution of the work, proper care should be taken to provide adequate protection to the existing structures, cables (electrical / telephone / computer etc), fresh water and fire pipelines etc. and other installations against any damage at the contractor's risk and expense. Careful manual excavation will have to be carried out in places where service lines have been laid to avoid any damage.

Any damage caused to the existing pavement / structures/facilities/service lines or defect arising during construction shall have to be made good / rectified forthwith as directed to the satisfaction of the Engineer. Care should be taken during transportation of materials and execution of work so as not to impede the smooth traffic flow and normal operations in adjoining areas.

Further, if so required by the Engineer in the interests of normal working of the port, it is found necessary to shift / suspend some construction activity for some duration, this shall be done in compliance with the instructions of the Engineer, without any additional cost.

The tenderers shall have to assess the impact of hindrance to the different activities of the work which may likely to occur during execution of the job due to various factors including those of shipping and other operational activities in the areas and also as stated above. They shall have to plan the work in such a way so that all the activities of the job can be continued after taking care of the above hindrances effectively round the clock even on Sundays and holidays in order to complete the job within scheduled time frame. The tenderers shall consider the above points while quoting their rates.

12.0 PARTICULARS OF EXISTING WORKS:

Such information as maybe given in the specification as to the existing features and works other than those now under construction as part of the present Haldia Dock Complex given without warranty of accuracy and neither the Trustees nor the Engineer will be liable for any discrepancies therein.

13.0 LIQUIDATE DAMAGE CLAUSE:

If the Contractor fails to complete the work within the stipulated dates or such extension thereof as communicated by the Engineer in writing, the Contractor shall pay as compensation (Liquidated Damage) to the Trustees and not as a penalty, ½% (half percent) of the total value of work (contract price) as mentioned in the letter of acceptance of the tender/offer, for every week or part thereof the work remains unfinished. Provided always that the amount of such compensation shall not exceed

10% of the said value of work. GST would be applicable extra on the amount of Liquidated damages.

13.0 PERFORMANCE GUARANTEE:

Earnest Money of the successful bidder (contractor) would be converted into part of the performance guarantee. Within **30 (thirty) days** from the placement of order, the contractor will have to submit the remaining amount of Performance Bond as per stipulation of General Conditions of Contract in the form of an irrevocable guarantee from Kolkata / Haldia Branch of any Nationalized Bank or Scheduled Bank of India in the proforma attached to the General Conditions of Contract and for a sum computed according to the General Conditions of Contract. The Bank Guarantee for the Performance Bond shall remain valid till 30 (thirty) days after completion of maintenance period specified in the tender or any extension thereto as would be informed by the Engineer.

The submission of the Performance Guarantee shall be at the expense of the contractor in all respects.

In case Bank Guarantee is issued for a branch outside Haldia/ Kolkata, the same should be counter-guaranteed and payable by the Branch of the same bank situated at Haldia/ Kolkata.

Performance Guarantee will be discharged and released to the Contractor after the elapse of thirty days after the issue of certificate of final completion in terms of General Conditions of Contract. Provided always that if the Contractor has still to execute any works as provided in the GCC, and/or if some dues are recoverable from the Contractor, the Employer reserves the right to withhold discharge of the performance guarantee until thirty days after the completion of all these.

14.0 CONTRACTOR'S SITE OFFICE, STORE SHEDS ETC:

On an application from the Contractor, land near to the site of work will be allotted by the Trustees for the construction of Site Office, Store etc. For such allotment a rent of Rs.10.00 per annum or part thereof will be recovered from Contractor's bill. The Contractor shall hand over vacant possession of the land free from all encumbrances within two months from actual date of completion of work. In case the contractor does not remove the site offices, store etc. within two months from the actual date of completion, the contractor will have to pay compensation equivalent to **three times** the applicable license fee for the plot of land allotted to him temporarily for site offices, store etc. as per Schedule of Rent of KoPT's land and buildings at Haldia and to be recovered from his final bill / Security Deposit. The Contractor shall build office, sheds etc. on the land allotted to him as approved by the Engineer or his representative and shall maintain a clean hygienic condition throughout the period of their use.

The Contractor shall maintain a Site Order Book at his site office and all orders and instructions issued to him from time to time by the Engineer or his representative will be recorded in the Site Order Book. The Contractor shall promptly sign each entry as a token of having received such orders.

The Contractor shall maintain a Site Order Book at his site office and all orders and instructions issued to him from time to time by the Engineer or his representative will be recorded in the Site Order Book. The Contractor shall promptly sign each entry as a token of having received such orders.

Electrical power will be supplied on chargeable basis as per the prevailing rates, which may be revised from time to time. Necessary length of cable to the work place and energy meter / source and other accessories for the aforesaid purpose shall be arranged by the contractor.

Dock permit for the contractor and their staff, materials, vehicles etc. for movement inside the dock area, will be on chargeable basis.

Drinking water may be supplied on chargeable basis. However, all necessary arrangement like plumbing / installation of water meter etc. to be made by the contractor.

15.0 KEEPING THE SITE AND WORKING AREA CLEAR:

The Contractor shall at all times keep the site and working areas free from all surplus materials, rubbish and offensive matter all of which shall be disposed off in a manner to be approved by the Engineer's Representative. As the works will be carried out mainly inside of operational buildings of HDC, the Contractor has to make necessary arrangement to clear the rubbishes etc. from the buildings, at the end of day's work at his own cost & risk.

16.0 SUPPLY OF MATERIALS BY THE CONTRACTOR:

It will be the responsibility of the contractor to make timely procurement of all materials for both temporary and permanent works required in accordance with the Bill of Quantities or for any extra/additional work required as per the directions of the Engineer. The contractor shall procure materials only from manufacturers approved by the Engineer.

The contractor will be allowed to take away surplus materials on completion of the work, subject to Engineer's verification of contractor's records of entry and consumption of materials in the works.

17.0 PROGRAMME OF WORK AND PROGRESS REPORT:

The contractor shall suitably schedule various activities required for completion of the work and shall submit detailed programme of work in writing in the form of a Bar / PERT Chart before commencement of the work.

If desired by the Engineer, the contractor, during execution of the work, shall submit on the first day of each month the progress report of the work in a manner as directed, showing therein corrective measures to be taken to make up the backlog, if there be any.

18.0 PROGRESS PHOTOGRAPHS & VIDEO RECORDS :

The contractor shall supply to the Engineer suitable negative and four prints of progress photographs, suitably inscribed, of an approximate size 165 mm x 115 mm of such portions of the work in progress as well as of completed work as the Engineer may direct. Progress photographs shall be required every month, unless otherwise directed by the Engineer. The negatives of the photographs shall become the property of the

Board of Trustees and no prints from the negatives may be supplied to any person or persons without the authorization of the Engineer. Approximately 60 copies of photographs will be chosen by HDC from a minimum of 140 nos. original photographs.

The contractor shall also supply to the Engineer edited colour progress video films with sound and narration in English of various phases of such portion of the work in progress and completed work as the Engineer may direct so as to have a coherent record of the construction from start to completion. The video films will be recorded on digital video discs or compact discs which shall become the property of the Board of Trustees and no copies of the above films shall be supplied to any person or persons without the permission of the Engineer. Duration of the video film records after editing shall be minimum 30 minutes.

Cost of such photography/ video filming and ancillary works shall be borne by the contractor and no extra payment will be allowed.

19.0 SAFETY:

The contractor shall adhere to safe construction practice, guard against hazardous and unsafe working conditions and follow all safety precautions for prevention of injury or accidents and safeguarding life and property. The contractor shall comply with relevant provisions of Dock Workers (Safety, Health and Welfare) Act - 1986 and Dock Workers (Safety, Health and Welfare) Regulation - 1990 and Safety Officer of the Trustees or Safety Inspectors shall be afforded all facilities for inspection of the works, tools, plant, machineries, equipments etc. wherever so required. The contractor shall further comply with any instruction issued by the Engineer, Trustees' Safety Officer, Safety Inspector in regards to safety which may relate to temporary, enabling or permanent works, working of tools, plants, machineries, equipments, means of access or any other aspect.

The contractor shall provide all necessary first aid measures, rescue and life saving equipment to be available in proper condition.

The contractor shall provide PPE's (Personal Protective Equipments) such as, helmet, safety shoe etc. to all workers and shall also provide job specific PPE's e.g. safety belts for working at heights; protective face and eye shield, goggles, hand gloves for welding / gas cutting works; protective foot wear and gloves for hot works; facemasks, gloves and overalls for painting works, mixing and handling materials etc, as directed by the Engineer.

All safety rules shall be strictly followed while working on live electrical systems or installations as stipulated in the relevant safety codes.

During work on the river and at the waterfront, the areas of work must be clearly marked with red flags and prominent red lamps (at night) to prevent any danger to workmen engaged at site or to ships berthing at the Jetties.

During work at night, the Contractor shall deploy halogen lamps/ other electrical lamps at the required spots to ensure there is adequate illumination for hazard-free work.

Before allowing workers in sewers, manholes, any duct or covered channel etc, the manhole covers shall have to be kept open and ventilated at least one hour in advance and necessary safety torches / lamps should be inserted first before allowing entry to the worker. Suitable hand gloves and other safety gear will be provided to the worker during handling / removing of slushes / sludge etc. without any extra cost.

The contractor shall adopt all the above safety measures at his own cost.

The successful bidder shall also ensure that -

- (i) No damage is caused to plants and vegetations unless the same is required for execution of the project proper.
- (ii) The work shall not pollute any source of water / land / air surrounding the work site so as to affect adversely the quality or appearance thereof or cause injury or death to animal and plant life.
- (iii) His office & labour hutment etc. shall be maintained in a clean and hygienic condition throughout the period of their use and different effluents of the labour hutment shall have to be disposed off suitably.

20.0 INSURANCE OF WORKS:

The Contractor shall insure insurance coverage for men and material as per provision of the general conditions of the contract.

20.1 PROVISION TO INDEMNIFY EMPLOYER

The terms shall include a provision whereby, in the event of any claim in respect of which the contractor would be entitled to receive indemnity under the policy being brought or made against the Employer, the insurer will indemnify the Employer against such claims and any costs, charges and expenses in respect thereof.

20.2 ACCIDENTS OR INJURY TO WORKMEN

The Employer shall not be liable for any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the Contractor or any sub-contractor. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

21.0 WATCHING OF MATERIALS:

The successful Bidder will have to arrange for proper security of all materials and tools brought by him. Although the working area is under the jurisdiction of C.I.S.F., the Contractor shall be fully responsible for any theft or damage of the materials. He may be allowed to post his Watchmen round -the-clock at the work-site with valid permit and prior intimation to CISF. No extra amount will, however, be paid separately for watching. The Contractor should quote his rates keeping this in view.

22.0 CONTRACT LABOUR LAWS:

The Contractor must comply with the provisions of Contract labour (Regulation & Abolition) Act 1970 and Contract Labour (Regulation & Abolition) Central Rules 1971 and the rules framed there under with all modifications/amendments being enforced from time to time.

The Contractor shall indicate maximum number of workmen to be engaged on any day for execution of the work in the appropriate place in the ABSTRACT FORM OF TENDER & he shall have to obtain a regular /permanent license as per sec12(1) of the Contract Labour Act.

Further , whenever a contract work has commenced or completed , the contractor has to intimate the same to the Assistant Labour Commissioner(Central) /labour

Enforcement Officer (Central) in Form IV-A , within 15 days of such commencement or completion.

The contractor has to obtain a certificate of registration under “Building & Other Construction Workers (Regulation Of Employment & Conditions Of Service) Act-1996 and Central Rule 1998 and his rate shall include a cess payable @ 1 % of the cost of construction as applicable under “Building & Other Construction Workers Welfare Cess Act -1996 & Welfare Cess Rules 1998.

The contractor has to arrange for displaying the name of the Regional Labour Commissioner (Central), Asst. Labour Commissioner (Central) & Labour Enforcement Officer (Central) at his worksite(s).

The contractor shall inform the Principal Employer the date, time & venue of disbursement of wage to be made by him to his workers.

The successful bidder shall also be required to put up a notice at the site of work mentioning the date, time & venue of disbursement to be made by him to his workers and he or his authorized representative shall have to be present during period of disbursement.

22.1 COMPLIANCE WITH EPF & M P ACT:

The successful contractor will have to comply with provision of EPF & MP Act -1952 (along with amendments, if any), issued from time to time.

If asked for by the Employer, the contractor will be required to submit photocopy of all payment challans and produce the original for verification to the representative of the principal employer, i.e. Sr. Dy. Manager (P&E).

22.2 COMPLIANCE WITH ESI ACT:

If applicable , the successful bidder will have to comply with provisions of “Employers State Insurance Act - 1948”, along with amendments (if any) issued from time to time. He shall obtain ESI registration and shall deduct employees’ contribution as applicable percentage of the wages of each of the employees’ and shall deposit the same together with employer’s contribution as applicable percentage of such total wages payable to the employees or at such rates as fixed by the competent authority from time to time.

In case, where an employee is not covered under ESIC Scheme (or contribution not paid for him regularly) and meet an accident during and arising out of his employment, the contractor being the immediate employer, shall be liable to pay him suitable compensation.

The contractor will be required to submit Photo copies of all payment challans and produce the original for verification to the representative of the principal employer, i.e. Sr. Dy. Manager (P&E).

23.0 INDEMNIFICATIONS:

The successful bidder shall be deemed to indemnify and keep indemnified the Trustees from and against all actions, claims, demands and liabilities whatsoever under and in respect of the breach of any of the provisions of any law, rules or regulations having the force of law, including but not limited to -

- a) The Minimum Wages Act, 1948.

- b) The Dock Workers (Regulation Of Employment) Act, 1948
- c) The Building And Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996
- d) The Dock Workers' Safety, Health & Welfare Act , 1986
- e) The Payment of Wages Act, 1936.
- f) The Workmen's Compensation Act, 1923.
- g) The Employees Provident Fund Act, 1952.
- h) The Contract Labour (Regulation and Abolition) Act, 1970; Rules 1971.
- i) The Payment of Bonus Act, 1965.
- j) The Payment of Gratuity Act, 1972.
- k) The Equal Remuneration Act, 1976.
- l) The Employees State Insurance Act, 1948 & Employees State Insurance (Amendment) Act ,1989
- m) Child Labour (Prohibition and Regulation) Act, 1986.
- n) The Maternity Benefits Act 1961
- o) Interstate Migrant Workmen (Regulation Of Employment & Conditions Of Service) Act, 1979.
- p) Motor Vehicle Act, latest revision.

24.0 CUSTOMS AND SECURITY REQUIREMENTS:

The Haldia Dock area is a custom bonded area and as such the Contractor shall comply with all regulations of the Port and Customs authorities extent and those that may be imposed from time to time in respect of the transit of all Contractor's plant, vehicles, materials and staff in the area.

The contractor shall fence the area that may be allotted to him inside the "Bonded area" of the Port for stores and other requirements with closely boarded C.G.I. sheets fixed to a suitable framework, to the full satisfaction of the Port and Security authorities.

The Contractor shall abide by all the regulations and rules of Kolkata Port Trust applicable to the Haldia Dock Complex, as extant or as may be amended.

25.0 PERMIT:

Entry Permits may be necessary for the workmen and for the movement of transport vehicles for this work. In the interest of work, necessary entry Permits will be issued on chargeable basis by the Trustee's for the workmen, vehicles /lorries/trucks etc. for entering into the Dock area for execution of work / testing of materials at the departmental laboratory, against application as per prescribed proforma by the contractor, after the same is examined and approved by the Engineer. The entry permit will be issued as per requirement following latest Permit Scheme of Haldia Dock Complex. All existing rules, including any amendments thereto, in future, will have to be complied with by the contractor.

27.0 SETTLEMENT OF DISPUTES:

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with or arising out of the contract or the execution of the works, the same shall be dealt as per relevant provisions of the General Conditions of Contract and THE ARBITRATION AND CONCILIATION (AMENDMENT) ACT, 2015 and any statutory amendment thereof.

28.0 GOODS & SERVICES TAX (GST):

Any modification (addition /deletion /alteration including implementation of GST) in taxes or duties in future by the GOI after due date of submission of this tender will be addressed separately at the material time. Therefore the detailed tax break-up considered in the quoted price should also be submitted by the bidders along with their price bid in order to assess the impact of future tax levied subsequently, if any on the contract price. Any offer without the detailed tax break-up, if becomes the lowest price-bid and is accepted by KoPT with or without any negotiation of price, shall not be entitled for reimbursement of any additional amount due to subsequent modification of taxes or duties. But any recovery due on account of any subsequent modification in taxes or duties shall be assessed by HDC without any reference to the contractor and shall be made by HDC from the amount payable under the contract.

29.0 PROVISIONS FOR SITE STAFF OF ENGINEER:

After the issue of Engineer's notice to commence, the contractor shall as soon as possible make available of the following facilities for the staff of the Engineer at the Site of Work, all in accordance with the approval of the Engineer or his Representative and the Contract Price shall be deemed to be inclusive of the provision for all these facilities.

- (a) Office Facilities :- Throughout the period of Contract, office accommodation at site for two rooms with electricity and water supply and adequate ventilation for the sole use of Engineer's Representative and his staff. The room shall be provided and maintained with suitable furniture, peon facility as directed by the Engineer. An independent toilet facility shall have to be provided solely for the use of the client.
- (b) Equipment Facilities: - Provide and maintain all necessary equipments in working condition for use of Engineer's staff such as survey, testing of materials and any other instruments, equipment and apparatus as they may require for carrying out the contractual obligations.
- (c) Transport facilities :- The contractor Shall make available, maintain and operate one good 4 wheeler vehicle (Jeep/Maruti/Ambassador etc.) having a minimum sitting capacity for 4 persons with driver, fuel, etc for the use of the Engineer or his representative for survey, testing, inspection, measurement etc related to the work on working days from 8:00 A.M to 10:00 P.M during currency of contract. The vehicle shall not be more than 5(five) years old. Any failure in supply / sudden withdrawal / stoppage will attract deduction from bills @ HDC's similar operating transport contract. In case of exigency and work during night hours, the car shall be made available for the entire night. The supply of vehicle shall start on 15th day from the date of work order and shall finish on the date of completion of work including extension of date of completion, if any.

30.0 **Inspection of materials and execution at site:** Inspection of materials and project execution at site would be carried out as per procedure mentioned in the general conditions of contract

SECTION - IX
BIDDING FORMS

BIDDING FORM – I

MINIMUM ELIGIBILITY CRITERIA

[To be filled up and uploaded, duly signed & stamped]

(I) ANNUAL TURNOVER STATEMENT

The annual turnover of(name of the bidding firm), **for the years 2015-16, 2016-17 and 2017-18** , based on the **Balance Sheets and Profit & Loss Accounts**, are given below:

Financial years	Turnover (as per Auditor's Report / Balance Sheet) [in ₹]
2015-2016	
2016-2017	
2017-2018	
<i>Total</i>	
<i>Average Annual Turnover</i>	

SIGNATURE OF CHARTERED ACCOUNTANT ::

NAME OF CHARTERED ACCOUNTANT ::

(COMPANY SEAL)

NOTE : Copy of Balance Sheets and Profit & Loss Accounts enclosed with sealed & signed.

(II) TECHNICAL EXPERIENCE

Sl. No.	Contract No. / Order No. and date	Name of the Employer and Place of work	Contract value [in ₹]	Date of completion of work	Page number(s) of reference / supporting document (s), uploaded.

TEST OF RESPONSIVENESS

[To be filled up and uploaded, duly signed & stamped]

	Requirement	Submitted/Not submitted [Put √ if submitted & X if not submitted]	Validity/ For the month of
a)	scanned copies of work order(s) for similar works, successful completion certificates (with performance) from clients indicating the date of completion, value of work done, etc.	<input type="checkbox"/> If submitted, Page Number(s):	
b)	scanned copies of Annual Financial Turnover Statement (certified by CA) for the years 2015-16, 2016-17 and 2017-18 along with Balance Sheets and Profit & Loss Accounts.	<input type="checkbox"/> If submitted, Page Number(s):	
c)			
i)	GST Registration Certificate.	<input type="checkbox"/> If submitted, Page Number(s):	Not applicable.
ii)	Document in support of non-applicability.	<input type="checkbox"/> If submitted, Page Number(s):	Not applicable.
d)			
i)	Profession Tax Clearance Certificate (PTCC)	<input type="checkbox"/> If submitted, Page Number(s):	
	<u>OR</u> Profession Tax Payment Challan (PTPC)	<input type="checkbox"/> If submitted, Page Number(s):	
ii)	Document in support of non-applicability.	<input type="checkbox"/> If submitted, Page Number(s):	Not applicable.

	Requirement	Submitted/Not submitted [Put √ if submitted & X if not submitted]	Validity/ For the month of
e)			
i)	Certificate for allotment of EPF Code No.	<input type="text"/> If submitted, Code No.: Page Number(s):	Not applicable.
ii)	Latest EPF Payment Challan.	<input type="text"/> If submitted, Page Number(s):	
iii)	Document in support of non-applicability.	<input type="text"/> If submitted, Page Number(s):	Not applicable.

f)			
i)	Registration Certificate of ESI Authority.	<input type="text"/> If submitted, Code No.: Page Number(s):	Not applicable.
ii)	Affidavit, Declaration and Indemnity Certificate.	<input type="text"/> If submitted, Page Number(s):	Not applicable.
g)	PAN Card	<input type="text"/> If submitted, PAN No.: Page Number(s):	Not applicable.
h)	MSME / MSE / DIC / SSI / NSIC certificate	<input type="text"/> If submitted, Page Number(s):	
i)	Power of Attorney	<input type="text"/> If submitted, Page Number(s):	Not applicable.

BIDDING FORM-III**GENERAL INFORMATION OF THE BIDDER**

[To be filled up and uploaded, duly signed & stamped]

1.	Bidder's Legal Name (IN CAPITAL LETTERS)		
2.	a)	Country of registration.	
	b)	Year of registration.	
	c)	Legal address in country of registration.	
	d)	URL of the bidder.	
3.	Information regarding bidder's authorised representative(s) / contact person(s)		
	a)	Name(s)	
	b)	Address(es)	
	c)	Telephone number(s)	
	d)	Facsimile number(s)	
	e)	Electronic mail address	

4.	a)	Address of the branch office, if any	
	b)	Name of the contact person at branch office	
	c)	Telephone number(s)	
	d)	Facsimile number(s)	
	e)	Electronic mail address	
5.	Whether the bidder is a Proprietorship Firm or Partnership Firm or Limited Company .		
6.	Details of the Banker(s) :		
	a)	Name of the Banker(s) in full.	
	b)	Address(es) of the Banker(s)	
	c)	Telephone number(s)	
	d)	Facsimile number(s)	
	e)	Electronic mail address	
	f)	Name(s) of the contact person(s)	
7.	Bank details for ECS payment :		
	a)	Bank Account number.	
	b)	Name of the bank.	
	c)	Name of the branch.	
	d)	Address of the branch.	
	e)	RTGS code of the branch.	
	f)	MICR code of the branch.	
8.	Income Tax and Goods & Services Tax (GST) details (if applicable):		
	a)	Permanent Account Number (PAN)	

	b)	GST Registration Number (GSTIN)	
9.		Employees' Provident Fund (EPF) Code No.	
10.		Employees' State Insurance (ESI) Code No.	
11.		Mainlines of business	

BIDDING FORM-IV

FORMAT FOR DECLARATION

[To be printed on the bidder's Letter Head and uploaded after signing]

To,
General Manager (Engg.)
Haldia Dock Complex ;
Kolkata Port Trust.

Name of Work: *Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex*

Tender No. : SDM(P&E)/T/19/2018-2019

E-Tender No.: KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311

I, the authorized signatory of the (Name of the Company /Firm) do hereby declare / confirm that :

* I / We have not been **debarred, banned or delisted** by any Government or Quasi-Government Agencies or Public Sector Undertakings in India.

I / we have not made any **addition / modification / alteration** in the **Bidding Documents** (including Bidding Forms & Contract Forms) hosted in the websites.

The prices have been quoted in the Price Bid, electronically, through the website of MSTC Ltd. only and no direct or indirect mention of the prices has been made by me / us anywhere else in my / our bid.

No extraneous conditions (like “Not Applicable”, conditional rebate, etc.), regarding the Price Bid, have been mentioned anywhere in our bid.

**Signature of authorised person of the
bidder
(with office seal)**

* In case the **firm** has been debarred or banned or delisted by any Government or Quasi-Government Agencies or Public Sector Undertaking in India, then the same should be declared properly, after modifying the sentence, suitably.

BIDDING FORM-V

FORM OF TENDER

[To be printed on the bidder's Letter Head and uploaded after signing]

To,
General Manager (Engg.)
Haldia Dock Complex ;
Kolkata Port Trust.

Name of Work : Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex, Kolkata Port Trust

Tender No. : SDM(P&E)T/19/2018-2019

E-Tender No.: KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311

I/We (Name of the bidder)of
.....(Address of the bidder) having
examined the site of work, inspected the drawings and read the **bidding documents**
[including **all addenda / corrigenda**, issued i.e. {insert Addendum /
Corrigendum / Extension No(s)}], hereby bid and undertake to execute & complete all the work
related to “Design, manufacture, fabrication, supply, Erection, testing, commissioning and
handing over fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock
Complex, Kolkata Port Trust”, required to be performed in accordance with the **Technical
Specification, General Conditions of Contract (GCC), Special Conditions of Contract
(SCC)**, etc., at the **rates & prices** quoted in the **Price Bid** [*submitted electronically, through the
website of MSTC Ltd.*], withinmonth from the date of order to commence the
work , in the event of our bid being accepted.

I/we also undertake to enter into a **Contract Agreement** in the form hereto annexed [**Section
XI**] with such alterations or additions thereto, which may be necessary to give effect to the
acceptance of the bid and incorporating such **Technical Specification, General Conditions of
Contract (GCC), Special Conditions of Contract (SCC)**, etc. and I/we hereby agree that until
such **contract agreement** is executed, the said **Technical Specification, General Conditions
of Contract (GCC), Special Conditions of Contract (SCC)**, etc. and the bid, together with the
acceptance thereof in writing, by or on behalf of the Employer, shall be the contract.

I / We requiredays preliminary time to arrange and procure the
materials, tools & tackles, etc. required by the work, from the date of acceptance of bid, before
I/we could commence the work.

I / We have deposited**only** using the **Axis Bank Payment
Gateway**, vide **URN No.:**..... of
....., as **Earnest Money Deposit**.

I/We agree that the period for which the bid shall remain open for acceptance, shall not be less than **days**, from the last date of submission of bid.

(Signature of authorised person of the bidder)

WITNESS:

Signature:

Name : _____

Name:

(In Block Letters)

Designation : _____

Address:

Date : _____

Occupation:

(Office Seal)

PRICE SCHEDULE

[To be filled up and uploaded, duly signed & stamped]

OFFER FOR DESIGN, MANUFACTURE, FABRICATION, SUPPLY, ERECTION, TESTING, COMMISSIONING AND HANDING OVER OF FIRE FIGHTING FACILITIES AT OUTER TERMINAL II (OT-II).

Sl No	DESCRIPTION	QTY.	Applicable GST %		
			CGST	SGST	IGST
	Design, Supply Erection, Testing and commissioning of				
	EQUIPMENTS				
1	Centrifugal engine driven pump of 720 cum/ hr. - 160 m head along with diesel tank having a capacity of not less than to run 6 hrs. Including civil foundation, batteries, battery chargers, engine control panel, insulated exhaust pipe and all necessary fixtures and accessories, cables. Termination and earthing etc. required for satisfactory commissioning.	6 nos.			
2	Jockey motor driven pump of 50 cum/ hr. - 160 m head Including civil foundation, control panel and accessories, cables. Termination and earthing required for satisfactory commissioning.	3 nos.			
3	Electric Motor driven Horizontal Foam pump of capacity 40M ³ /Hr 170 Mtr head Including civil foundation, control panel and accessories, cables. Termination and earthing required for satisfactory commissioning.	2 nos.			
4	Electric Motor driven Air compressor with control panel of capacity 20 cfm at a pressure of 9 kg/cm ² with receiver and air dryer.	1 no.			
5	Pressure Gauge with half coupling, nipple, root valve (ball type), adapter, 3-way gauge cock, vibration dampener.	16 nos.			

SI No	DESCRIPTION	QTY	Applicable GST %		
	Design, Supply Erection, Testing and commissioning of		CGST	SGST	IGST
6	Differential Pressure Gauge with half coupling, nipple, root valve (ball type), adapter, 3-way gauge cock, vibration dampener. - 0 to 6 kg/cm ²	8 nos.			
7.	360 cum / hr. remotely operated tower monitors including control panel.	3 nos.			
8.	Suitable structural Tower(30m) for installation of tower monitor	3 nos			
9.	Single headed fire hydrants with flow not less than 900 LPM @12 kg/cm ² on each head	9 nos			
10.	360 cum / hr. Jumbo Nozzles including MOV and accessories	3 nos			
11.	Foam Tank capacity 18000 litres including filling pump.	2 nos			

PIPING					
1.	Design, Fabrication supply erection and commissioning of, bending laying of M.S. pipelines (in segments of 6m to 12m length) with associate fittings such as bends, flanges, reducers, tees and miters wherever required including pad plates, executing all works, providing labour, transportation of pipes to work spot, supply of all equipments, consumables and materials required to perform the work in all respects in accordance with the drawings, specifications. D.P. test and carrying out air clean and hydro testing of complete pipeline in various test sections including pre-testing of designated sections, as approved by HDC to specified pressure, location of leaks and rectification of defects and handing over the system.				
SI No	DESCRIPTION	QTY	Applicable GST %		
			CGST	SGST	IGST
1. a	26" dia. X 8mm W / T - inside lining	105 rmt.			
1.b	14" dia. X 8mm W / T - inside lining	550 rmt.			
1.c	8" dia. - Medium	105 rmt.			
1.d	6" dia. - Medium	100 rmt.			
1.e	4" dia. - Medium	150 rmt.			
1.f	3" dia. - Medium	25 rmt.			
1.g	2" dia. - Medium	rmt.			
2	-do- above but SS 304 pipes				
2.a	4" dia. - Medium	30 rmt.			
2.b	3" dia. - Medium	150 rmt.			

2.c	2" dia. - Medium	15 rmt.			
2.d	1.5" dia. - Medium	75 rmt.			
2.e	1" dia. - Medium	450 rmt.			

Sl No	DESCRIPTION	QTY	Applicable GST %		
			CGST	SGST	IGST
3	Design, Fabrication supply erection and commissioning of approved make IS make valves including required no. of bolts & nuts with washers suitable for marine condition.				
3.a	26" dia. Butter fly valves	2 Nos			
3.b	14" dia. Butter fly valves	4 Nos			
3.c	14" dia. valve	5 Nos			
3.d	14" dia. NRV	5 Nos			
3.e	8" dia. NRV	3 Nos			
3.f	6" dia. NRV	3 Nos			
3.g	6" dia. Gate valve	3 Nos			
3.h	4" dia. Gate valve	16 Nos			
3.i	4" dia. NRV	6 Nos			
3.j	3" dia. Gate valve	7 Nos			
3.k	3" dia. NRV	3 Nos			
3.l	1.5" dia. Ball valve	6 Nos			
3.m	1.5" dia. Gate valve	2 Nos			
3.n	1" dia. Ball valve	6 Nos			
3.o	0.5" dia. Ball valve	19 Nos			
3.p	1" dia. Solenoid Ball valve	6 Nos			
3.q	6" dia. Remote operated Ball valve	3 Nos			
3.r	8" dia. Remote operated Ball valve	3 Nos			
3.s	2" dia. Remote operated Ball valve	4 Nos			
3.t	1.5" dia. Pressure control valve	1 Nos			
3.u	4" dia. Inline inductors	6 Nos			
3.v	4" dia. Water cum foam ground monitor - 144 cum / hr including accessories	6 Nos			
3.w	4" dia. Single headed hydrant	10 Nos			
3.x	1.5" dia. Base monitors propotioners	6 Nos			
3.y	2" dia. Tower monitors propotioners	4 Nos			

3.z	8" dia. Proportioner for Tower monitors	3 Nos			
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SI No	DESCRIPTION	QTY	Applicable GST %		
			CGST	SGST	IGST
4.	SAFETY EQUIPMENTS				
	PORTABLE AND WHEELED EQUIPMENTS				
4.a	Supply and Erection of 10 KG DCP Extinguisher	8 Nos			
4.b	Supply and Erection of 75 KG wheeled DCP extinguisher	10 Nos			
	CONTROL ROOM PROTECTION				
4.c	Supply of Fire proximity suit	2 Nos			
4.d	Supply of Breathing apparatus	2 Nos			
4.e	Supply and Erection of 75 KG wheeled DCP extinguisher	4 Nos			
4.f	Supply and Erection of 10 KG DCP Extinguisher	6 Nos			
4.g	Supply and Erection of CO2 Extinguisher 4.5 KG	6 Nos			
4.h	Supply and Erection of DCP Extinguisher 6 KG	4 Nos			
	5. NOZZLES				
5.a	Supply and Erection of Jet nozzle with branch pipe	4 Nos			
5.b	Supply and Erection of Fog Nozzle pipe	4 Nos			
5.c	Supply and Erection of Universal nozzle	4 Nos			
5.d	Supply and Erection of Foam branch pipe	4 Nos			
5.e	Supply and Erection of HAZCHEM nozzle	4 Nos			
5.f	Supply and Erection of High flow long range multipurpose nozzle	4 Nos			
	6. ACCESSORIES				
i.	Supply of Sand scoops	4 Nos			
ii	Supply of Safety helmets	10 Nos			
iii	Supply of Water curtain nozzle	2 Nos			
iv	Supply of Stretcher	2 Nos			
v	Supply of First aid box with Anti snake serum	3 Nos			
vi	Supply of 3.3 KVA rubber	2 Nos			

	hand gloves				
vii	Supply of Explosive meter	1 Nos			
viii	Supply of Resuscitator	2 Nos			

Sl No	DESCRIPTION	QTY	Applicable GST %		
			CGST	SGST	IGST
ix	Supply and Erection of Electrical siren (3 km range)	1 Nos			
x	Supply and Erection of Hand operated siren	1 Nos			
xi	Supply and Erection of Water jet blanket	2 Nos			
xii	Supply of Red / Green flags	1 Nos			
xiii	Supply of Positive pressure type self contained breathing apparatus with spare cylinder	2 Nos			
xiv	Supply of low temperature gloves	4 Nos			
xv	Supply , Erection and Commissioning of H2s Gas detection system with suitable gauges and sensors at four different places at jetty with audio visual alarm including all necessary FRLS cable connection.	2 Nos			
xvi	Supply , Erection and Commissioning of Foam compound @ 3% on tower monitors+ base monitors	35,000 litres			
xvii	Fittings	1 PS			
xviii	Supply and Laying of following type of LT cables suitable for voltage grade 1.1 kV PVC insulated armoured aluminium FRLS Cable Following:				
	i) 3.5 C x 50 Sq mm	As per design			
xix	Supply and Erection of 2 mm thick G.I cable tray including all necessary G.I angles, Brackets, supports nuts and bolts etc. of following sizes				
	i) 300 mm	As per design			
	ii) 150 mm	As per design			
xx	Design, Fabrication supply erection and commissioning of	1 Nos			

	approved make of 10 MT EOT Crane				
xxi	Supply installation and commissioning of International Shore Connector.	1 Nos			
xxii	Supply Installation Testing and commissioning of 415 V 3 Phase TPN MCB distribution board complete with all internal connections.	1 set			
xxiii	Incomer and Outgoing pannels	1 set			
xxiv	Sand Buckets	4 sets			
xxv	Pump Strainers Basket types	12 Nos.			
xxvi	Remote control system for operating all monitors, jumbo nozzles, MOV etc including cable and other accessories.	1 set			
xxvii	Supply installation testing and commissioning of Heat Shrinkable cable joint kit	As per design			

NOTE:

- a. The Tenderer shall furnish the quoted amount online through MSTC only.
- b. The Tenderer shall furnish applicable GST.

DATE:

TENDERER

SEAL

SECTION – X(A)
BILL OF QUANTITIES

UNPRICED BID

[Price to be quoted on line. No physical submission of price would be accepted.]

MECHANICAL WORKS:

SI No	DESCRIPTION Design, Supply Erection, Testing and commissioning of	QTY (A)	UNIT RATE (B)	Total AMT (Rs) A x B
EQUIPMENTS				
1	Centrifugal engine driven pump of 720 cum/ hr. - 160 m head along with diesel tank having a capacity of not less than to run 6 hrs. Including civil foundation, batteries, battery chargers, engine control panel, insulated exhaust pipe and all necessary fixtures and accessories, cables. Termination and earthing etc. required for satisfactory commissioning.	6 nos.		
2	Jockey motor driven pump of 50 cum/ hr. - 160 m head Including civil foundation, control panel and accessories, cables. Termination and earthing required for satisfactory commissioning.	3 nos.		
3	Electric Motor driven Horizontal Foam pump of capacity 40M ³ /Hr 170 Mtr head Including civil foundation, control panel and accessories, cables. Termination and earthing required for satisfactory commissioning.	2 nos.		
4	Electric Motor driven Air compressor with control panel of capacity 20 cfm at a pressure of 9 kg/cm ² with receiver and air dryer.	1 no.		
5	Pressure Gauge with half coupling, nipple, root valve (ball type), adapter, 3-way gauge cock, vibration dampener.	16 nos.		
6	Differential Pressure Gauge with half coupling, nipple, root valve (ball type), adapter, 3-way gauge cock, vibration dampener. - 0 to 6 kg/cm ²	8 nos.		
7.	360 cum / hr. remotely operated tower monitors including control panel.	3 nos.		

8.	Suitable structural Tower(30m) for installation of tower monitor	3 nos		
9.	Single headed fire hydrants with flow not less than 900 LPM @12 kg/cm ² on each head	9 nos		
10.	360 cum / hr. Jumbo Nozzles including MOV and accessories	3 nos		
11.	Foam Tank capacity 18000 litres including filling pump.	2 nos		
PIPING				
1.	Design, Fabrication supply erection and commissioning of, bending laying of M.S. pipelines (in segments of 6m to 12m length) with associate fittings such as bends, flanges, reducers, tees and miters wherever required including pad plates, executing all works, providing labour, transportation of pipes to work spot, supply of all equipments, consumables and materials required to perform the work in all respects in accordance with the drawings, specifications. D.P. test and carrying out air clean and hydro testing of complete pipeline in various test sections including pre-testing of designated sections, as approved by Haldia port to specified pressure, location of leaks and rectification of defects and handing over the system as per the directions of site-in-charge.			
SI No	DESCRIPTION	QTY (A)	UNIT RATE (B)	Total AMT (Rs) A x B
1. a	26" dia. X 8mm W / T - inside lining	105 rmt.		
1.b	14" dia. X 8mm W / T - inside lining	550 rmt.		
1.c	8" dia. - Medium	105 rmt.		
1.d	6" dia. - Medium	100 rmt.		
1.e	4" dia. - Medium	150 rmt.		
1.f	3" dia. - Medium	25 rmt.		
1.g	2" dia. - Medium	rmt.		
2	-do- above but SS 304 pipes			
2.a	4" dia. - Medium	30 rmt.		
2.b	3" dia. - Medium	150 rmt.		
2.c	2" dia. - Medium	15 rmt.		
2.d	1.5" dia. - Medium	75 rmt.		
2.e	1" dia. - Medium	450 rmt.		
3	Design, Fabrication supply erection and commissioning of approved make IS make valves including required no. of bolts & nuts with washers suitable for marine condition.			
3.a	26" dia. Butter fly valves	2 Nos		
3.b	14" dia. Butter fly valves	4 Nos		
3.c	14" dia. valve	5 Nos		
3.d	14" dia. NRV	5 Nos		
3.e	8" dia. NRV	3 Nos		
3.f	6" dia. NRV	3 Nos		

3.g	6" dia. Gate valve	3 Nos		
3.h	4" dia. Gate valve	16 Nos		
3.i	4" dia. NRV	6 Nos		
3.j	3" dia. Gate valve	7 Nos		
3.k	3" dia. NRV	3 Nos		
3.l	1.5" dia. Ball valve	6 Nos		
3.m	1.5" dia. Gate valve	2 Nos		
3.n	1" dia. Ball valve	6 Nos		
3.o	0.5" dia. Ball valve	19 Nos		
3.p	1" dia. Solenoid Ball valve	6 Nos		
3.q	6" dia. Remote operated Ball valve	3 Nos		
3.r	8" dia. Remote operated Ball valve	3 Nos		
3.s	2" dia. Remote operated Ball valve	4 Nos		
3.t	1.5" dia. Pressure control valve	1 Nos		
3.u	4" dia. Inline inductors	6 Nos		
3.v	4" dia. Water cum foam ground monitor - 144 cum / hr including accessories	6 Nos		
3.w	4" dia. Single headed hydrant	10 Nos		
3.x	1.5" dia. Base monitors proportioners	6 Nos		
3.y	2" dia. Tower monitors proportioners	4 Nos		
3.z	8" dia. Proportioner for Tower monitors	3 Nos		
4.	SAFETY EQUIPMENTS			
	PORTABLE AND WHEELED EQUIPMENTS			
4.a	Supply and Erection of 10 KG DCP Extinguisher	8 Nos		
4.b	Supply and Erection of 75 KG wheeled DCp extinguisher	10 Nos		
	CONTROL ROOM PROTECTION			
4.c	Supply of Fire proximity suit	2 Nos		
4.d	Supply of Breathing apparatus	2 Nos		
4.e	Supply and Erection of 75 KG wheeled DCp extinguisher	4 Nos		
4.f	Supply and Erection of 10 KG DCP Extinguisher	6 Nos		
4.g	Supply and Erection of CO2 Extinguisher 4.5 KG	6 Nos		
4.h	Supply and Erection of DCP Extinguisher 6 KG	4 Nos		
	5. NOZZLES			
5.a	Supply and Erection of Jet nozzle with branch pipe	4 Nos		

5.b	Supply and Erection of Fog Nozzle pipe	4 Nos		
5.c	Supply and Erection of Universal nozzle	4 Nos		
5.d	Supply and Erection of Foam branch pipe	4 Nos		
5.e	Supply and Erection of HAZCHEM nozzle	4 Nos		
5.f	Supply and Erection of High flow long range multipurpose nozzle	4 Nos		
6. ACCESSORIES				
i.	Supply of Sand scoops	4 Nos		
ii	Supply of Safety helmets	10 Nos		
iii	Supply of Water curtain nozzle	2 Nos		
iv	Supply of Stretcher	2 Nos		
v	Supply of First aid box with Anti snake serum	3 Nos		
vi	Supply of 3.3 KVA rubber hand gloves	2 Nos		
vii	Supply of Explosive meter	1 Nos		
viii	Supply of Resuscitator	2 Nos		
ix	Supply and Erection of Electrical siren (3 km range)	1 Nos		
x	Supply and Erection of Hand operated siren	1 Nos		
xi	Supply and Erection of Water jet blanket	2 Nos		
xii	Supply of Red / Green flags	1 Nos		
xiii	Supply of Positive pressure type self contained breathing apparatus with spare cylinder	2 Nos		
xiv	Supply of low temperature gloves	4 Nos		
xv	Supply , Erection and Commissioning of H2s Gas detection system with suitable gauges and sensors at four different places at jetty with audio visual alarm including all necessary FRLS cable connection.	2 Nos		
xvi	Supply , Erection and Commissioning of Foam compound @ 3% on tower monitors+ base monitors	35,000 litres		
xvii	Fittings	1 PS		
xviii	Supply and Laying of following type of LT cables suitable for voltage grade 1.1 kV PVC insulated armoured aluminium FRLS Cable Following:			
	i) 3.5 C x 50 Sq mm	As per design		
xix	Supply and Erection of 2 mm thick G.I cable tray including all necessary G.I angles, Brackets, supports nuts and			

	bolts etc. of following sizes			
	i) 300 mm	As per design		
	ii) 150 mm	As per design		
xx	Design, Fabrication supply erection and commissioning of approved make of 10 MT EOT Crane	1 Nos		
xxi	Supply installation and commissioning of International Shore Connector.	1 Nos		
xxii	Supply Installation Testing and commissioning of 415 V 3 Phase TPN MCB distribution board complete with all internal connections.			
xxiii	Incomer and Outgoing pannels	1 set		
xxiv	Sand Buckets	4 sets		
xxv	Pump Strainers Basket types	12 Nos.		
xxvi	Remote control system for operating all monitors, jumbo nozzles, MOV etc including cable and other accessories.	1 set		
xxvii	Supply installation testing and commissioning of Heat Shrinkable cable joint kit	As per design		
	Total			

SECTION – X(B)

CHECKLIST

Before scanning and upload the following required documents, all pages are to be signed by a person duly authorised to sign on behalf of the bidder, and are to be embossed with their official seal, owing responsibility for their correctness / authenticity. All pages of the aforesaid documents should be serially marked.

*The offered prices would be given in the “**Price Bid (Part-II)**” electronically, through the website of **MSTC Ltd.** only.*

Sl. No.	Particulars	Submitted/ Not submitted [Put √ if submitted and put X if not submitted]	If submitted, <u>page numbers</u>
1.	Filled up checklist.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Proof of Bid Document Fee .	<input type="checkbox"/>	<input type="checkbox"/>
3.	Proof of Earnest Money Deposit (EMD) .	<input type="checkbox"/>	<input type="checkbox"/>
4.	Certificate of getting benefit by MSME / SSI / NSIC for exemption of Bid Document Fee and Earnest Money ,	<input type="checkbox"/>	<input type="checkbox"/>
5.	Bidding Forms		
	i) Bidding Form – I	<input type="checkbox"/>	<input type="checkbox"/>
	ii) Bidding Form - II	<input type="checkbox"/>	<input type="checkbox"/>
	iii) Bidding Form – III	<input type="checkbox"/>	<input type="checkbox"/>
	iv) Bidding Form - IV	<input type="checkbox"/>	<input type="checkbox"/>

Sl. No.	Particulars	Submitted/ Not submitted [Put √ if submitted and put X if not submitted]	If submitted, <u>page numbers</u>
		<input type="checkbox"/>	<input type="checkbox"/>
v)	Bidding Form – V	<input type="checkbox"/>	<input type="checkbox"/>
vi)	Bidding Form - VI	<input type="checkbox"/>	<input type="checkbox"/>

SECTION – XI
CONTRACT FORMS

FORM OF AGREEMENT

(To be submitted on Non- Stamp Paper of worth not less than INR 50.00)

CONTRACT NO. : GM(E)/...../ /AGMT/...../.....

TENDER REFERENCE:

Tender No. : **SDM(P&E)T/19/2018-2019**

E- Tender No. : KoPT/Haldia Dock Complex/P&E Div/21/18-19/ET/311

for Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex, Kolkata Port Trust.

ORDER REFERENCE: // /O-... dated

This agreement made this day of , Two thousand ,
BETWEEN

The Board of Trustees for the Port of Kolkata, a body corporate -- constituted by the Major Port Trust Act, 1963 (hereinafter called the ‘**Trustees**’, which expression shall unless excluded by or repugnant to the context be deemed to include their successors in office) of the one part

AND

..... (hereinafter called the ‘**Contractor**’, which expression shall unless excluded by or repugnant to the context be deemed to include its heirs, executors, administrators, representatives and assignees or successors in office) of the other part

[Together hereinafter the ‘**Parties**’]

WHEREAS

The Trustees are desirous that certain works should be executed by the Contractor, viz. “Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex, Kolkata Port Trust” and have accepted a Bid / offer by the Contractor for execution, completion and maintenance of such works, including remedying any defects therein, during the Defect Liability Period.

NOW THIS AGREEMENT WITNESSETH as follows :

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in **Conditions of Contract** hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this agreement :

- a) The said bid / offer.
 - b) The Letter of Acceptance of the bid /offer [vide Order No./...../...../O-... dated]
 - c) The Conditions of Contract and **Technical Specification** [all terms and conditions of Tender No. SDM(P&E)T/19/2018-2019].
 - d) Addenda [Please insert Addenda Nos.]
 - e) “Price Comparative Statement”, showing the prices quoted (electronically, through the website of MSTC Ltd.) by the Successful Bidder, in the Price Bid.
 - f) All correspondence, by which the contract is added, amended, varied or modified, in any way, by mutual consent.
3. In Consideration of the payments to be made by the Trustees to the Contractor as hereinafter mentioned, the Contractor hereby covenant with the Trustees to execute, complete & maintain the work, including remedy any defects therein (during the Defect Liability Period”), in conformity with the provisions of the Contract, in all respects.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed the day and year first before written.

The parties hereunto affixed their respective Common Seals (or have hereunto set their respective hands and seals).

For and on behalf of

For and on behalf of

HALDIA DOCK COMPLEX
KOLKATA PORT TRUST
(TRUSTEES)

(CONTRACTOR)

SEAL

SEAL

In presence of

In presence of

INDEMNITY BOND

[To be submitted on Non-judicial Stamp Paper of worth not less than INR .50.00, **duly notarised**]

Reference:

Order No.:/...../...../O-... dated for **Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II).**

**Senior Deputy Manager (P&E),
Haldia Dock Complex ;
Operational Administrative Building (1st Floor) ;
Chiranjibpur, P.O.: Haldia ;
Dist. : Purba Medinipur ,
West Bengal, India
PIN : –721 604**

This deed of **Indemnity Bond** made on by having their office at (hereinafter called “the **Contractor**”).

Whereas the General Manager (Engineering), **Haldia Dock Complex, Kolkata Port Trust**, Dist.: Purba Medinipur, West Bengal (hereinafter call “the **Engineer**”) has placed an order, bearing no. SDM(P&E) //O-... dated and some materials, spare parts, components, sub-assemblies, etc. are required to be taken **outside of Haldia Dock Complex** premises for some specialized servicing, repairing, overhauling, etc. or **fault diagnosis & remedial measures** by the Contractor, as per the terms & conditions mentioned in the said order, and which have been mutually agreed upon by the parties hereto,

AND

Whereas in consideration of the said contract, the Contractor has agreed to execute an **Indemnity Bond** for the safe custody on receipt of the said materials, spare parts, components, sub-assemblies, etc., from the **Engineer** until the **completion of servicing / overhauling / repairing / remedial work** and returning back to the Engineer as hereinafter appearing.

Now this deed witnessed that in pursuance of the said agreement and in the premises, the Contractor agrees to indemnify Engineer and at all the terms, to hold themselves liable for all the **damages, loss** due to **pilferage / fire** or negligence on the part of the Contractor or their employees, agents and representatives or from whatever cause, with all losses, interest charges and expenses incurred by the said Engineer on account of the material(s) issued to the Contractor,

AND

It is in terms of the said contract and this **Deed of Indemnity**, the material(s) issued free to the Contractor for servicing / overhauling / repairing / **fault diagnosis & remedial work**, thereon shall be deemed to be the **property of the Engineer**.

It is hereby agreed that the Contractor shall be liable for all injury, losses and damages that may be caused to the, from whatever cause and further that the Contractor shall not part with or delivery possession of the said material(s) to any other party or person, save in compliance with and in performance & provision of contract in respect of which this **Indemnity Bond** is executed, the Contractor having undertaken to delivery the said material (s) in all respect in compliance with the terms of the contract.

This bond and the trust hereby created shall remain valid and binding on the Contractor till such time as the above said order has been fully and finally executed and Contractor has delivered the complete thereon to the Engineer under the terms of the contract.

For and on behalf of (name of the Contractor), under the common seal of the company.

WITNESS

(Signature of the authorised person on behalf of the Contractor)

(Signature)

Name :

Name :

Designation

Designation

Signed in my presence and identified by me

BANK GUARANTEE FOR PERFORMANCE GUARANTEE

[To be submitted on Non-judicial Stamp Paper of worth not less than INR 50.00]

To
The Board of Trustees,
for the Port of Kolkata.

BANK GUARANTEE NO..... DATE.....

Name of Issuing Bank.....

Name of Branch.....

Address.....

In consideration of the **Board of Trustees for the Port of Kolkata**, a body corporate – duly constituted under the Major Port Trusts Act, 1963 (Act 38 of 1963), (hereinafter referred to as “**The Trustees**”) having awarded to Shri / Messrs a Proprietary/ Partnership/Limited / Registered Company, having its Registered Office at (hereinafter referred to as “**The Contractor**”, which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns), a **CONTRACT** by issue of Trustees’ Work Order No. //...../O-.... dated for “***Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex, Kolkata Port Trust***” and the same having been unequivocally accepted by the Contractor resulting in a **CONTRACT** bearing No. **GM(E)/ / /AGMT/...../.....** and the Contractor having agreed to provide a **BANK GUARANTEE** from a Nationalized / Scheduled Bank of India, in prescribed format for ₹..... (**Indian Rupees**) only, for the faithful and satisfactory performance of the entire contract .

..... Branch, Kolkata/Haldia, do, on advice of the Contractor, hereby undertake to indemnify and keep indemnified the Trustees to the extent of the said sum of ₹..... (**Indian Rupees**) only. We, Branch, Kolkata/Haldia, her agree that if a written demand is made by the Trustees through any of its officials for ouring the Bank Guarantee constituted by these presents, we,..... Branch, Kolkata/Haldia, shall have no right to decline to cash the same any reason whatsoever and shall cash the same and pay the sum so demanded to the Trustees within a week from the date of such demand by an A/c Payee Banker's Cheque wnn in favour of "Kolkata Port Trust", without any demur. Even if there be any dispute ween the Contractor and the Trustees, this would be no ground for us, (Name of Bank), Branch, Kolkata/Haldia, to decline to honour Bank Guarantee in the manner aforesaid. The very fact that we, Branch, Kolkata...../Haldia, decline or fail or neglect to honour Bank Guarantee in the manner aforesaid, shall constitute sufficient reason for the Trustees enforce the Bank Guarantee unconditionally without any reference, whatsoever, to the tractor.

2. We, ' Branch, Kolkata /Haldia, further agree that a mere demand by the Trustees at anytime and in the manner aforesaid, is sufficient for us,Branch, Kolkata/Haldia, to pay the amount covered by this Bank Guarantee in full and in the manner aforesaid and within the time aforesaid without reference to the Contractor and no protest by the Contractor, made either directly or indirectly or through court, can be valid ground for us, Branch, Kolkata/Haldia, to decline or fail or neglect to make payment to the Trustees in the manner and within the time aforesaid.
3. We,..... Branch, Kolkata/Haldia, further agree that the Bank Guarantee herein contained shall remain in full force and effect, during the period that is taken for the due performance of the said contract by the Contractor and that it shall continue to be enforceable till all the dues of the Trustees under and/or by virtue of the terms and conditions of the said contract, have been fully paid and its claim satisfied and/or discharged in full and/or till the Trustees certify that the terms and conditions of the said contract have been fully and properly observed/fulfilled by the Contractor and accordingly, the Trustees have discharged the Bank Guarantee, subject however, that this guarantee shall remain valid upto and inclusive ofday of.....200.....and subject all so that the provision that the Trustees shall have no right to demand payment against this guarantee after the expiry of 6 (six) calendar months from the expiry of the aforesaid validity period upto.....or any extension thereof made by us,Branch, Kolkata...../Haldia, in further extending the said validity period of this Bank Guarantee on Non-judicial Stamp Paper of appropriate value, as required / determined by the Trustees, only on a written request by the Trustees to the Contractor for such extension of validity of this Bank Guarantee.
4. We,Branch, Kolkata /Haldia, further agree that, without our consent and without affecting in any manner our obligations hereunder, the Trustees shall have the fullest liberty to vary from time to time any of the terms and conditions of the said contract or to extend the time for full performance of the said contract including fulfilling all obligations under the said contract by the Contractor or to postpone for any time or from time to time any of the powers exercisable by the Trustees against the Contractor and to forebear or enforce any of terms and conditions relating to the said contract and We,.. .. .
... ..Branch, Kolkata... .. /Haldia, shall not be relieved from our liability by reason of any such variation or extension being granted to the Contractor or for any forbearance, act or commission on the part of the Trustees or any indulgence by the Trustees to the Contractor or by any such matter or thing of whatsoever nature, which under the law relating to sureties would, but for this provision, have effect of so relieving us,Branch, Kolkata /Haldia.
5. We, Branch, Kolkata /Haldia do also agree that the Trustees at their option shall be entitled to enforce this Guarantee against us
... ..Branch, Kolkata /Haldia as principal debtor in the first instance without producing against the Contractor and notwithstanding any security or other guarantee that the Trustees may have in relation to the Contractor's liabilities.
6. We,.....Branch, Kolkata... .. /Haldia,

lastly undertake not to revoke this Bank Guarantee during its currency except with the previous consent of the Trustees in writing.

SIGNATURE... ..

NAME.....

DESIGNATION.....

(Duly constituted attorney for and on behalf of)

BANK. ,

BRANCH... ..

KOLKATA... .. /HALDIA

(OFFICIAL SEAL OF THE BANK)

Kolkata Port Trust
Haldia Dock Complex
CERTIFICATE OF COMPLETION OF WORK

Contractor : _____

Address : _____

Date of completion : _____

Dear Sir,

Subject : Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II) at Haldia Dock Complex, Kolkata Port Trust.

Reference : i) **Work Order No.:**/...../...../O-... dated
.....
ii) **Contract No./ Agreement No. :**/...../...../ AGMT /
...../

This is to certify that the above work which was carried out by you is, in the opinion of the undersigned, complete in every respect on the _____ day of _____ 20____, in accordance with terms of the contract and you are required to maintain the work in accordance with **GCC Clause No. 7.67** of the General Conditions of Contract and under provisions of the contract.

(Signature of the Engineer/Engineer's Representative)

Name:

Designation:

Date:

(OFFICIAL SEAL)

(“NO CLAIM CERTIFICATE” FROM CONTRACTOR)

[To be submitted on Bidder's Letter Head]

General Manager(Engineering)

Haldia Dock Complex ;

Kolkata Port Trust.

Engineering Department

Jawahar Tower Complex ;

P.O.: Haldia Township;

Dist.: Purba Medinipur ;

PIN: -721607

West Bengal, India.

Dear Sir,

Subject : Design, manufacture, fabrication, supply, Erection, testing, commissioning and handing over of fire fighting facilities at upcoming Outer Terminal –II (OT-II)

Reference :

i) **Work Order No.:**/...../...../O-... dated
.....

ii) **Contract No./ Agreement No. :**/...../...../ AGMT /
...../

I/We do hereby declare that I/we have received full and final payment from Haldia Dock Complex, Kolkata Port Trust, for the execution of the subject work, and I/we have no further claim against Haldia Dock Complex, Kolkata Port Trust in respect of the above mentioned job.

Yours faithfully,

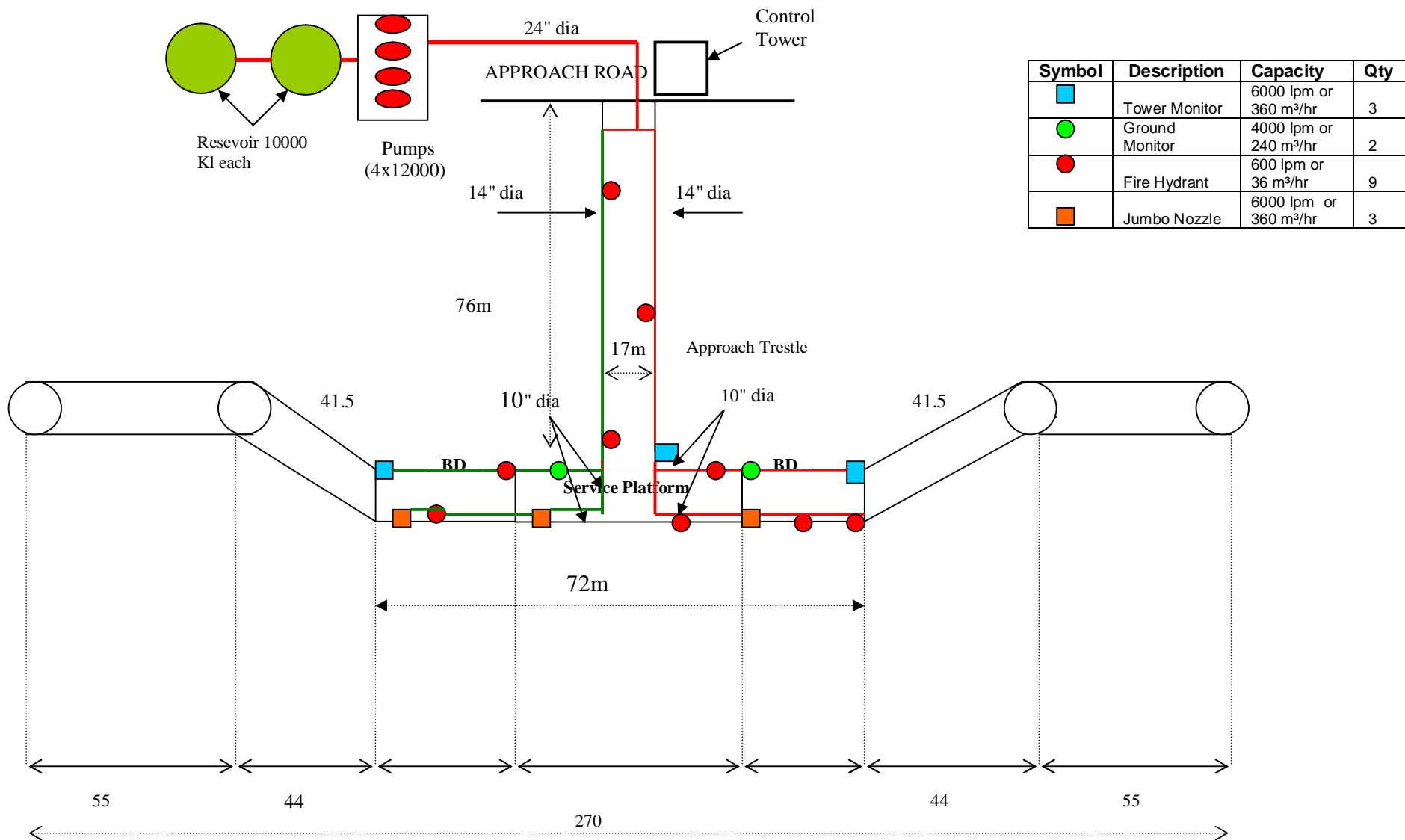
(Signature of Contractor)

Date :

Name of Contractor :

Address :

(OFFICIAL SEAL OF THE CONTRACTOR)



OT-II FIRE FIGHTING SCHEME

