

TENDER

FOR

PROCUREMENT OF SURVEY EQUIPMENT

Tender No. IWAI-15017/22/2021-AHS

INLAND WATERWAYS AUTHORITY OF INDIA

OCTOBER 2021

DISCLAIMER

- 1. This tender document is neither an agreement nor an offer by the Inland Waterways Authority of India (IWAI) to the prospective Bidders or any other person. The purpose of this tender document is to provide information to the interested parties that may be useful to them in the formulation of their Bid pursuant to this tender.
- 2. IWAI does not make any representation or warranty as to the accuracy, reliability or completeness of the information in this tender document and it is not possible for IWAI to consider particular needs of each party who reads or uses this tender document. This tender document includes statements which reflect various assumptions and assessments arrived at by IWAI in relation to the works. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. Each prospective Bidder should conduct its own investigations and analyses and check the accuracy, reliability and completeness of the information provided in this tender document and obtain independent advice from appropriate sources.
- 3. IWAI will not have any liability to any prospective Company / Firm / Consortium or any other person under any laws (including without limitation the law of contract, tort), the principles of equity, restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this tender document, any matter deemed to form part of this tender document, the award of the Assignment, the information and any other information supplied by or on behalf of IWAI or their employees, any consultants or otherwise arising in any way from the selection process for the Assignment. IWAI will also not be liable in any manner whether resulting from negligence or otherwise however caused arising from reliance of any Bidder upon any statements contained in this tender document.
- 4. IWAI will not be responsible for any delay in receiving the Bids. The issue of this tender document does not imply that IWAI is bound to select a Bidder or to appoint the successful Bidder, as the case may be, for the works and IWAI reserves the right to accept / reject any or all of Bids submitted in response to this tender document at any stage without assigning any reasons whatsoever. IWAI also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the Bid.
- 5. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. IWAI accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.
- 6. IWAI reserves the right to change / modify / amend any or all provisions of this tender document. Such revisions to the tender document / amended tender document will be made available on the e-procurement portal & website of IWAI.

TABLE OF CONTENTS

DISCLAIMER		2
SECTION - I: NOTICE INVITING E-TENDER		5
SECTION – II: INSTRUCTIONS TO BIDDERS (ITB)		7
SECTION – III: BID DATA SHEET		25
SECTION – IV: TECHNICAL BID STANDARD FORMS		29
FORM 4A: LETTER OF BID / Form of Tender	30	
FORM 4B: ELIGIBLE PROJECTS	32	
FORM 4C: AVERAGE ANNUAL TURNOVER	34	
FORM 4D: POWER OF ATTORNEY	35	
FORM 4E: List of Key Personnel		37
FORM 4F: List of Ongoing Assignments		38
FORM 4G: DECLARATION BY THE BIDDERS	39	
FORM 4H: BIDDER INFORMATION SHEET	41	
FORM 4I: FORMAT FOR PRE BID QUERIES / CLARIFICATIONS BY BIDDERS	42	
SECTION – V: FINANCIAL BIDS STANDARD FORMS		43
FORM FIN – 1: FINANCIAL BID SUBMISSION FORM	44	
Form Fin – 2A: Summary of Costs – BoQ1		45
Form Fin – 2B: Summary of Costs – BoQ1		46
Form Fin – 2C: Summary of Costs – BoQ1		47
Form Fin – 2D: Summary of Costs – BoQ1		48
Section VI- Delivery, Installation, Commissioning, Training and Payment Schedule		50
Section VII: SCOPE OF WORK AND TECHNICAL SPECIFICATIONS		54
SECTION - VIII: GENERAL CONDITIONS OF CONTRACT (GCC)		61
SECTION IX: SPECIAL CONDITIONS OF CONTRACT (SCC)		134
SECTION - X: ANNEXES		147
ANNEX - I INTEGRITY AGREEMENT		
ANNEX - II: FORMAT OF BANK GUARANTEE FORM FOR PERFORMANCE SECUR	ITY153	
ANNEX - III: AGREEMENT FORM	155	
ANNEX - IV: DETAILS OF BANK ACCOUNT	158	
ANNEX-V: BANK CERTIFICATION	159	
ANNEX-VI: LETTER OF ACCEPTANCE OF TENDER DOCUMENT	160	
ANNEX-VII: COMPLIANCE STATEMENT FOR SINGLE FREQUENCY HYDROGR SOUNDER (SCHECDULE 'A')		
ANNEX-VIII: COMPLIANCE STATEMENT for HEADING DGPS CUM BEACON RECEIVAND NAVIGATION (SCHECDULE 'B')		

LIANCE STATEMENT for DGPS RECEIVER (SCHECDULE 'D') .	
RTAKING FOR INPUT TAX CREDIT IN GST CLAUSE	

SECTION - I: NOTICE INVITING E-TENDER

INLAND WATERWAYS AUTHORITYOF INDIA

(Ministry of Shipping, Ports and Waterways, Government of India)

A-13, Sector-1, Gautam Buddha Nagar, NOIDA, U.P. - 201301

Tel (0120) 2474093: Fax (0120) 2522969

Email: hc.iwai@nic.in

Website: https://www.iwai.nic.in & https://eprocure.gov.in/eprocure/app

NOTICE INVITING E-TENDER

1. **Introduction**

Inland Waterways Authority of India (IWAI) invites online Tenders / Bids from reputed & eligible **Contractors / Companies / Firms** in two cover systems (Cover – I: Technical Bid and Cover – II: Financial Bid) for the work of "**Procurement of Survey Equipment**".

2. Critical Data Sheet

(a) Interested parties may download the tender document online from the site https://eprocure.gov.in/eprocure/app and or IWAI's website "www.iwai.nic.in" and pay INR 1,000/- + 18% GST i.e. INR 1000/- + 180/- = INR 1180/ (Rs. One Thousand One Hundred Eighty Only) for each Schedule as the cost of tender document / tender fee deposited to IWAI fund through RTGS / NEFT. However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the Tender Fee / cost of tender document, on submission of documents to the extent as per the Government of India notifications in this regard.

SCHEDULE 'A'				
1	1 Single Beam Echo Sounder With Transducer			
1.1	NW-16 (RO Guwahati) No. 1			
1.2	NW-3 (RO Kochi)	no.	1	
	SCHEDULE 'B'			
2	2 Heading DGPS cum Beacon Receiver for survey and Navigation			
2.1	NW-2 (RO Guwahati)	Nos.	1	
	SCHEDULE 'C'			
3	DGPS Receiver			
3.1	NW-16 (RO Guwahati)	No.	1	
3.2	NW-4 (RO Vijayawada)	Nos.	1	
SCHEDULE 'D'				
4	Handheld GPS			
4.1	NW-4 (RO Vijayawada)	Nos.	1	

(b) Some important dates for this tender process are as follows:

(i)	Document download start date	18.10.2021 at 0900 hours
(ii)	Last Date of submission of clarifications	01.11.2021 at 1800 hours
(iii)	Pre-bid meeting	NIL
(iv)	Bid Submission Last Date	15.11.2021 up to 1530 hrs
(v)	Technical Bid Opening date	16.11.2021 at 1600 hrs
(vi)	Financial Bid Opening date	To be intimated later

3. **Brief Scope of the Work**

In brief, the scope of work for the appointed firm shall be "**Procurement of Survey Equipment**". The detailed Terms of Reference (ToR) shall be as described in Section - VII of this tender document.

4. Clarifications

Clarification / Query, if any, on the tender document can be submitted to:

Hydrographic Chief,

Inland Waterways Authority of India,

(Ministry of Shipping, Ports and Waterways, Govt. of India)

A-13, Sector – 1, Noida-201301, U. P.

Tel. Nos. 0120 - 2527667

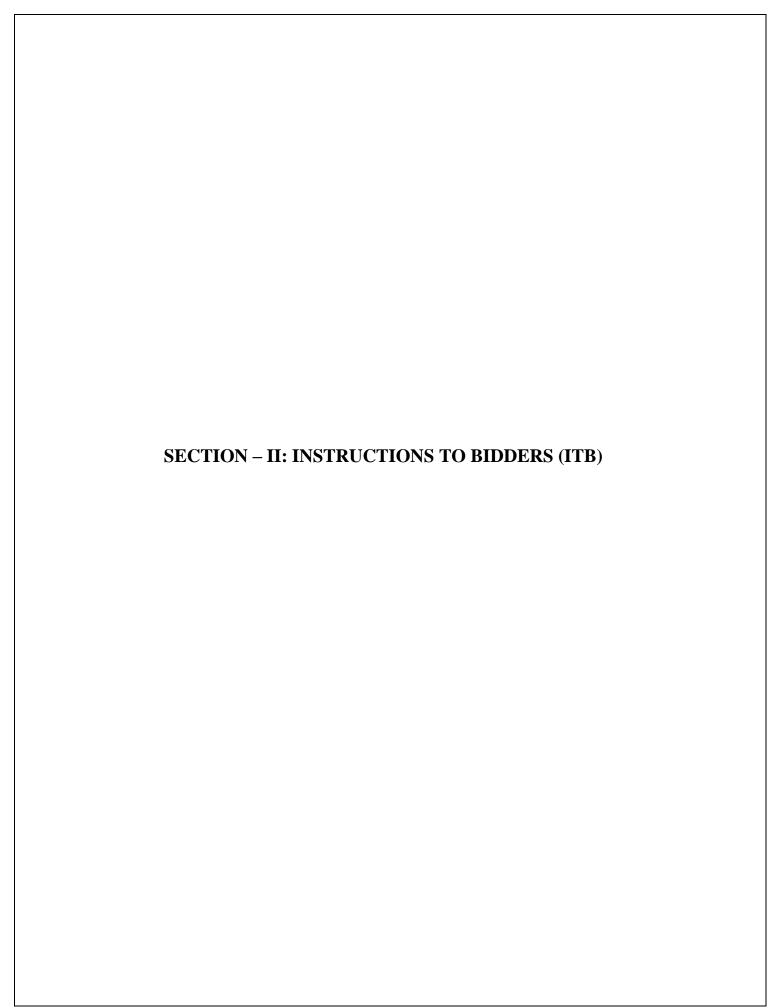
Fax No. 0120 - 2527667

E-Mail: hc.iwai@nic.in

Website: http://www.iwai.nic.in

5. IWAI reserves the right to accept or reject any or all Tenders without assigning any reason and no correspondence shall be entertained in this regard.

Hydrographic Chief IWAI, Noida



1

1.1 Background

Inland Waterways Authority of India (IWAI) is a statutory body under the Ministry of Shipping, Government of India. IWAI was set up in 1986 for regulation and development of Inland Waterways for the purposes of shipping and navigation. IWAI is primarily responsible for development, maintenance and regulation of Inland Water Transport (IWT) in the country and specifically National Waterways (NW). The Parliament of India has passed the National Waterways bill, 2015 on 9th March 2016, declaring 106 new National Waterways in addition to the existing five National Waterways.

- 1.2 Inland Water Transport (IWT) has the potential to form the most economic, reliable, safe and environmentally friendly form of transport. When developed for use by modern inland waterway vessels operating on dependable rights of way, it can reduce investment needs in rail and road infrastructure, promote greater complementarities in the riparian states, enhance intra-regional trade and, through increased economies of scale, significantly reduce overall logistics costs for the benefit of the entire economy and India's global trade competitiveness.
- 1.3 IWAI carries out Hydrographic Surveys in NWs as per its mandate and for this purpose it procures survey equipment.
- 1.4 Accordingly, the objective of this tender is to "Procurement of Survey Equipment"

2 Introduction

- 2.1 The Employer will select a Company / Firm (the "Contractor") in accordance with the method of selection specified in Clause 15 & Clause 16 under Section II: ITB.
- 2.2 The name of the Assignment / Job has been mentioned in Section III: Bid Data Sheet. Detailed scope of the Assignment / Job has been described in Section VI: Terms of Reference (ToR).
- 2.3 The date, time and address for submission of the Bids have been given in Section III: Bid Data Sheet.
- 2.4 The Bidder shall bear all costs associated with the preparation and submission of their Bids.
- 2.5 The Employer is not bound to accept any Bid and reserves the right to annul the selection process at any time prior to contract award, without thereby incurring any liability to the Bidder.

3 Bidder Eligibility Criteria

- 3.1 The Bidders shall meet the following pre-qualification criteria:
 - Bidder may be a firm that is a Private entity or a Government entity. Bidders that are government owned entity in the Employer's country may participate only if they can establish that they (i) operate under commercial law and (ii) are not dependent agencies of the Employer.
- 3.2 The Bidder shall meet the Qualification criteria of executing "Similar Works" of the value as mentioned in clause 16.1 of ITB. The Bidder shall indicate the value of the orders executed by him together with the details of name of the party, order value, scope of work / component breakup, completion period stipulated in the order and actual completion period. The completion certificate, awarded by the client should have a mention of start date, date of completion and value of the work

- executed by the Bidder. In case the work was performed by the Bidder in a JV, the same shall be supported by a client certificate enumerating the claimant share also. In case the work was performed by the Bidder as a sub-contractor, the Bidder shall submit similar completion certificate awarded to it by the main contractor and countersigned by the Employer / Client of the main Contractor.
- 3.3 Copy of work order / letter of award / letter of work agreement alone shall not suffice Bidders claim for executing the Similar Works. Submitting completion certificate from the client on its letter head along with supporting documents as mentioned in clause 3.2 above is mandatory to qualify.
- 3.4 Average Annual Turnover during the last three (03) years ending 31st March of the previous financial year should be as mentioned in clause 16.1.2 of ITB. The Bidders shall provide financial turnover of the firm for the last three years duly certified by the Statutory Auditor(s).
- 3.5 Bidder should not have been debarred / blacklisted during the last three years. However, hiding of the facts or non-compliance by the Bidder in this regard would be punishable under existing law and would lead to rescinding or termination of the work if information relating to debarment or blacklisting is brought to knowledge of the Employer even during the currency of the contract brought forward at a later stage. Declaration in this regard has been incorporated in Form 4G, Section IV.
- 3.6 The similar works experience of parent company / subsidiary / sister Company of the Bidder shall not be considered.
- 3.7 The Bidder shall also indicate the following:
 - 3.7.1 The Bidder shall have adequate resources for successful execution of the works and should be financially solvent. Bidder shall provide a solvency certificate from any nationalized / scheduled bank in India for a minimum amount as indicated in Section III: Bid Data Sheet.
 - 3.7.2 The Bidder shall be income tax assesse and accordingly the Bidder shall submit copy of Income Tax Return (ITR) filed by the Bidder for the last three financial years.
 - 3.7.3 The minimum Bid Capacity of the Bidder should be as mentioned in clause 16.1.3 of ITB. The Bidders shall submit Form 4J, Section IV in support of this criteria.

4 Pre Bid Meeting

No pre bid meeting will be held.

5 Clarifications and Addendums

- 5.1 Bidders may request a clarification on any clause of the document up to the number of days / dates indicated in Section III: Bid Data Sheet before the Bid submission last date. Any request for clarification must be sent in writing, or by e-mail to the Employer's address indicated in Section III: Bid Data Sheet. No request for the clarification shall be entertained if such request is received by the Employer after the deadline for submitting clarifications.
- 5.2 The Employer will respond to the queries raised by the Bidders (including an explanation of the query but without identifying the source of query) along with any amendment, which would be published on the website of IWAI and e-procurement portal.
- 5.3 At any time before the submission of Bids, the Employer may amend the tender document by issuing an addendum / corrigendum (amendment). The amendment / clarification, if any, to the document will be made available on https://eprocure.gov.in/eprocure/app and & on IWAI's website <a href="www.iwai.nic.in". All Bidders participating in the Bid shall be deemed to have kept them informed

and updated about each such amendment / clarification, which is posted on the above website from time to time. The Bidders shall acknowledge receipt of all amendments. To give reasonable time to the Bidders to consider an amendment, the Employer may, if the amendment is substantial, extend the deadline for the submission of Bids. Declaration on the issue has been built-up in Form 4E, Section IV.

6 Preparation of Bids

In preparing their Bid, Bidders are expected to examine in detail the documents comprising the tender document. Material deficiencies in providing the requisite information may result in rejection of the Bidder's Bid. The bidder at its own responsibility and risk is recommended to visit and examine the sites and obtain all necessary information that may be required for preparing the bid and entering into a contract for the data services. The costs of visiting the site shall be at the bidder's own expense.

Bidders shall adhere to the requirements mentioned below:

6.1 Earnest Money Deposit (EMD)

6.1.1 All Bidders shall furnish EMD of the amount as mentioned in Section III: Bid Data Sheet. However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the EMD on submission of documents to the extent as per the Government of India notifications in this regard.

EMD for the mentioned amount shall be deposited to IWAI Fund through RTGS / NEFT in the following account:

Name of Bank Account: IWAI FUND

Bank Name and Address: Union Bank of India, Sector-15, Noida

Bank Account Number: 513202050000007

IFSC: UBIN0551325

- 6.1.2 Bids not accompanied by EMD shall be rejected as non-responsive.
- 6.1.3 No interest shall be payable by the Employer for the sum deposited as EMD.
- 6.1.4 The EMD of those Bidders whose Financial Bids have been opened but are not selected as "successful Bidder" would be returned within seven days of issuance of Letter of Acceptance (LoA) to the successful Bidder.
- 6.1.5 The EMD of Bidders who have not qualified for opening of Price Bids in terms of clause 3 & 16 of ITB would be returned within seven days of opening of Price bid.
- 6.1.6 The EMD shall be forfeited by the Employer in the following events:
 - (i) If Bid is withdrawn during the bid validity period including any extension agreed to by the Bidder thereof.
 - (ii) If the Bid is varied or modified in a manner not acceptable to the Employer after opening of Proposal during the validity period or any extension thereof.

If the Bidder tries to influence the evaluation process.

- (iii) If the lowest Bidder raises any fresh issue and / or T&C after opening of bid and prior to signing of agreement, it will be construed as withdrawal of the original bid and in that case EMD is liable to be forfeited.
- (iv) In case the Bidder, submits false certificate in terms of any documents supported to this Tender.
- (v) If the Bidder fails to sign the Contract in accordance with Conditions of Contract on receipt of LoA.
- (vi) In case the Bidder is found to indulge in corrupt or fraudulent practices at any stage of the execution of the contract.
- (vii) If the Bidder fails to furnish the Performance Bank Guarantee in accordance with Conditions of Contract.
- (viii) In case of a Bidder revoking or withdrawing his Tender or varying any terms of the Bid without the consent of the Employer in writing.
- (ix) In case of forfeiture of EMD, as prescribed from (i) to (viii) above, the Bidder shall not be allowed to participate in the retendering process of the work.

6.2 Cost of Tender Document / Tender Fee

All Bidders are required to pay the cost of tender document as mentioned in Section III: Bid Data Sheet, through RTGS / NEFT. However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Startups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the Tender fee on submission of documents to the extent as per the Government of India notifications in this regard. The cost of tender document is Non-Refundable.

Cost of tender document for the mentioned amount shall be deposited to IWAI Fund through RTGS / NEFT in the following account:

Name of Bank Account: IWAI FUND

Bank Name and Address: Punjab National Bank, Sector-18, Noida

Bank Account Number: 3702000100833867

IFSC: PUNB0370200

6.3 **Bank Solvency**

All Bidders shall submit Bank Solvency certificate from a nationalized / scheduled bank in India for a minimum amount as mentioned in Section - III: Bid Data Sheet. The Bank Solvency certificate submitted by the Bidder shall not be older than one (01) year from the Bid Submission Last Date. In case Bidder does not adhere to this criterion, his bids shall be considered non-responsive and shall not be considered for further evaluation process. The bank solvency certificate shall be from any Nationalized/Scheduled Bank in India in the name of the bidder.

6.4 Taxes

The Bidders shall fully familiarize themselves with the applicability of all types of taxes and all such taxes, as prevailing on date of submission of the bid, must be included by the Bidder in the Financial Proposal along with the conditions mentioned therein, except for GST which will be quoted separately

by the Bidder as per Form Fin -2. It may be noted that the Bidder shall have to be registered with GST and shall submit the proof of the same at the time of bid submission. The GST shall be paid as per existing rules and regulations at the time of payment. The bidders shall submit undertaking for Input Tax Credit in GST as per format Annexure-XI.

6.5 Currency

Bidders shall express the price of their Assignment / job in **Indian Rupees (INR).**

6.6 Language

The Bid as well as all related correspondences exchanged between the Bidders and the Employer shall be in English language and shall be strictly as per the formats attached in this tender document. The Employer will evaluate only those Bids that are received in the specified formats and are complete in all respects. Any supporting document submitted by the Bidder with its Bid or subsequently, in response to any query / clarification from the Employer shall be in English and in case any of these documents is in another language, it must be accompanied by an accurate translation of all the relevant passages in English, and in such case, for all purposes of interpretation of the Bid, the translation in English shall prevail.

6.7 **Bid Validity**

Section - III: Bid Data Sheet indicates for how long the Bids submitted by the Bidders must remain valid after the submission date. During this period, Bidders shall maintain the availability of Key Personnel nominated in the Bid and also the amount quoted for the services in the Financial Bid shall remain unchanged. Should the need arise, the Employer may request Bidders to extend the validity period of their Bids. Bidders who agree to such extension shall confirm that they will maintain the availability of the Key Personnel proposed in the Bid and that their Financial Bid will remain unchanged. Also, in their confirmation of extension of validity of the Bid, Bidders could submit new staff in replacement, which would be considered in the final evaluation for contract award. The Bidders who do not extend the validity of their bids, shall not be considered for further evaluation.

6.8 **Number of Bids**

A bidder can submit one bid only as a single entity (as JV/consortium is not allowed). In case a bidder/partner of the firm, submits or participates in more than one bid, the application of the bidder shall be rejected summarily.

7 Conflict of Interests

- 7.1 Employer requires that selected Bidder (the "Contractor") provides professional, objective, and impartial advice and at all times holds the Employer's interest's paramount, strictly avoids conflicts with other assignment(s) / job(s) or his own corporate interests and act without any consideration for future work.
- 7.2 Without limitation on the generality of the foregoing, Bidders, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:
 - (a) **Conflicting Activities**: A firm or any of its affiliates who have been engaged by the Employer to provide goods, works or assignment/job other than design and build assignment / job for a project shall be disqualified from providing design and build assignment/job related to those goods, works or assignments / jobs. Conversely, a firm or any of its affiliates who have been hired to provide

design and build assignment/job for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods or works or assignment/job other than design and build assignment/job resulting from or directly related to the firm's design and build assignment/job for such preparation or implementation. For the purpose of this paragraph, assignment/job other than design and build assignment/job are defined as those leading to a measurable physical output; for example, surveys, exploratory drilling, aerial photography, satellite imagery etc.

- (b) Conflicting assignment/ job: A Contractor {including its Personnel and Sub-Contractor(s)} or any of its affiliates shall not be hired for any assignment/ job that by its nature may be in conflict with another assignment/ job of the Contractor to be executed for the same or for another Employer, for example a Contractor hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project and a Contractor assisting an Employer in the privatization of public assets shall not purchase nor advise purchasers of such assets.
- (c) **Conflicting Relationships:** A Contractor (including its Personnel and Sub-Contractors) that has a business or family relationship with a member of the Employer's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment/job (ii) the selection process for such assignment/job or (iii) supervision of the Contract, may not be awarded a Contract unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Employer throughout the selection process and the execution of the Contract.
- 7.3 Contractors have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Employer, or that may reasonably be perceived as having this effect. Any such disclosure shall be made as per the standard forms of technical proposal provided herewith. If the Contractor fails to disclose said situations and if the Employer comes to know about any such situation at any time, it may lead to the disqualification of the Contractor during bidding process or termination of its Contract during execution of assignment.
- 7.4 No agency or current employees of the Employer shall work as Contractors under their own ministries, departments or agencies. The contract is liable for cancellation if either the contractor himself or any of his employees or representatives are found to be persons / person who have held Class I post under IWAI immediately before retirement and has within two years of such retirement accepted without obtaining the previous permission of IWAI, or the Chairperson as the case may be, and employment as contractor, or in connection with the execution of the public works, or as an employee of such contractor. If the contract is terminated on account of the failure of the contractor to comply with this clause, IWAI shall be entitled to recover from him such damages as may be determined by the Engineer in Charge with due regard to the inconvenience caused to IWAI on account of such termination without prejudice to IWAI's right to proceed against such officer.

8 Acknowledgement by Bidders

It shall be deemed that by submitting the Proposal, the Bidder has:

- 8.1 Made a complete and careful examination of this Tender;
- 8.2 Received all relevant information from the Employer;
- 8.3 Satisfied itself about all matters and necessary information required for submitting a competitive bid;

- 8.4 Updated itself about any amendments / clarifications that have been posted on the website and e-procurement portal in terms of Clause 5.2 & 5.3 above;
- 8.5 Acknowledged that it does not have a Conflict of Interest; and
- 8.6 Agreed to be bound by the undertaking provided by it under the terms and conditions laid in this tender document.

9 Guidelines for e-submission of the Bids

- 9.1 The Bids should be submitted online through Central Public Procurement Portal for e-Procurement https://eprocure.gov.in/eprocure/app.
- 9.2 Possession of valid Digital Signature Certificate (DSC) and enrolment / registration of the Bidders on the e-procurement / e-Tender portal is a prerequisite for e-Tendering.
- 9.3 Bidder should enroll in the e-Procurement site https://eprocure.gov.in/eprocure/app using the option available "Enroll Here" on the home page portal. Enrolment is free of charge. During enrolment / registration, the Bidders should provide the correct / true information including valid e-mail id. All the correspondence shall be made directly with the Bidders through email id provided.
- 9.4 Bidders need to login to the site through their user ID / password chosen during enrolment / registration.
- 9.5 Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY / TCS / node / e-Mudra or any Certifying Employer recognized by CCA India on e-Token / Smart Card, should be registered.
- 9.6 The Bidder should only use the registered DSC and should ensure safety of the same.
- 9.7 Bidder may go through the Tenders published on the site and download the required tender documents / schedules in which the Bidder is interested.
- 9.8 After downloading / getting the tender document / schedules, the Bidder should go through them carefully and then submit the documents as asked.
- 9.9 If the Bidder wish to seek any clarifications, this may be obtained online through the Tender site, or through the contact details as specified in Section III: Bid Data Sheet. The Bidder should also take into account the addenda / corrigenda published before submitting the Bids online.
- 9.10 Then the Bidder may log into the site through the secured log in by giving the user id / password chosen during enrolment / registration and then by giving the password of the e-Token / Smart card to access DSC.
- 9.11 Bidder will then select the tender which he / she is interested in by using the search option & then moves it to the 'my favorites' folder.
- 9.12 From the favorite's folder, he selects the tender to view all the details indicated.
- 9.13 It is construed that the Bidder has read all the terms and conditions before submitting his / her offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected.
- 9.14 Bidder, in advance, should get ready the Bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in general PDF / xls / rar / jpg formats. If there are more than one document, they can be clubbed together and can be provided in the requested format

- as specified in Section III: Bid Data Sheet. Each document to be uploaded online should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip / rar and the same can be uploaded, if permitted.
- 9.15 The Bidders can update well in advance, the documents such as certificates, annual report details etc., under "My Space" option and these can be selected as per Tender requirements and then sent along with Bid documents during Bid submission. This will facilitate the Bid submission process making it faster by reducing upload time of Bids.
- 9.16 Bidder should submit the Tender Fee and EMD for the amount as specified in Section III: Bid Data Sheet. The original payment instruments should be posted / couriered / given in person so as to reach to the Employer on or before bid closing date & time. Scanned copy of the instruments for both these payments should be uploaded as part of the offer.
- 9.17 While submitting the Bids online, the Bidder should accept the Terms & Conditions and proceed further to submit the Bid packets.
- 9.18 The Bidder has to select the payment option as offline to pay the Tender Fee and EMD as applicable and enter details of the instruments.
- 9.19 The details of the DD / any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during Bid submission time. Otherwise submitted Bid will not be acceptable.
- 9.20 The Bidder has to scan digitally sign and upload the required Bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the Bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the tender document including conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender document.
- 9.21 The Bidder has to upload the relevant files required as indicated in the cover content as enumerated in clause 10 below.
- 9.22 If the price Bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price Bid / BOQ template must not be modified / replaced by the Bidder; else the Bid submitted is liable to be rejected for this Tender.
- 9.23 The Bidders are requested to submit the Bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the Bid submission end Date & Time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the online submission of Bids by the Bidders at the eleventh hour.
- 9.24 After the Bid submission, the acknowledgement number, given by the e-tendering system should be printed by the Bidder and kept as a record of evidence for online submission of Bid for the particular Tender and will also act as an entry pass to participate in the Bid opening date.
- 9.25 The Bidder should ensure that the Bid documents submitted are free from virus. If the documents could not be opened, due to virus, during Tender opening, the Bid is likely or liable to be rejected.
- 9.26 The time settings fixed in the server side and displayed at the top of the Tender site, will be valid for all actions of requesting, Bid submission, Bid opening etc., in the e-Tender system. The Bidders should follow these time settings during Bid submission.

- 9.27 All the data being entered by the Bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during Bid submission & not be viewable by any one until the time of Bid opening.
- 9.28 Any Bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers / Bid opener's public keys. Overall, the uploaded tender documents become readable only after the Tender opening by the authorized Bid openers.
- 9.29 The confidentiality of the Bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 9.30 The Bidder should logout of the Tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 9.31 Any queries relating to the tender document and the Terms & Conditions contained therein should be addressed to the TIA for a Tender or the relevant contact person indicated in the Tender.
- 9.32 Any queries relating to the process of online Bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

10. Submission of Bids

- (i) The Hard Copy of original PoA and payment instruments in respect of Tender Fee & EMD, must be delivered to the office of Hydrographic Chief, A-13, Sector-1, Gautam Buddha Nagar, Noida, U.P-201301 as mentioned in Section III: Bid Data Sheet, on or before Bid Closing Date & Time.
- (ii) Online Bids submitted without hard copies of original PoA and payment instruments towards Tender Fee & EMD shall automatically become ineligible and shall not be considered for opening of bids.
- (iii) In case of MSE registered firms, letter of claim of exemption for EMD & Tender Fee with documentary evidence in support of the claim must be delivered to the office of authorized representative of IWAI as mentioned in Section III: Bid Data Sheet, on or before Bid Closing Date & Time.
- (iv) The Bidders are further advised to number all the pages and prepare a table of contents in the beginning of each Part referring the page numbers of the indexed items.
- (v) The scanned copy of the Technical (hard and soft copies both) and Financial Bids, complete in all respects, should be submitted as per sequence mentioned below. Bids should be submitted in Two Covers:

10.1 Cover – I: Technical Bid

10.1.1 **Part – I**

- (a) Proof of Tender Fee as specified in Section III: Bid Data sheet or claim of exemption with supporting documents.
- (b) Proof of EMD as specified in Section III: Bid Data Sheet or claim of exemption with supporting documents
- (c) Proof of Bank Solvency for the minimum amount as specified in Section III: Bid Data Sheet

- (d) Letter of Acceptance of tender document duly filled and signed by the authorized signatory of the Bidder as per Annex VI in Section X.
- (e) Letter of Bid (Section IV: Form 4A)
- (f) Signed declaration by the Bidder (Section IV: Form 4G)
- (g) PoA for the authorized person of the Bidder as per Section IV: Form 4D. This PoA shall be accompanied by copy of company identity card or general identity card (passport / Driving license / Voter's ID etc.) of the authorized representative.
- (h) Bidder information Sheet as per Section IV: Form 4H
- (i) Composition / Ownership / Shareholding pattern of the organization
- (j) Board Resolution, details of top management (Board members), key officials with documentary evidence, Articles of Association / Memorandum of Association of the Company.
- (k) Registration / Incorporation Certificate of the Company.
- (l) Original tender document with all addenda & corrigenda issued till last date of bid submission date duly stamped and signed by the authorized signatory of the Bidder.

Note: If the Tender is submitted by a firm in Partnership, it shall be signed by all the partners of the firm above, their full names and current business address, or by a partner holding the PoA for the firm for signing the Tender in which case a certified copy of the PoA shall accompany the Tender. A certified copy of the Partnership Deed and current business address of all the partners of the firm shall also accompany the Tender.

10.1.2 **Part – II**

- (a) Scanned copy of the Annual Report/Audited balance sheets for the last three financial years (2017-18, 2018-19 and 2019-20) ending 31st March of the previous financial year.
- (b) GST Registration certificate.
- (c) Income Tax Return (ITR) filed by the Company for the last three financial years
- (d) PAN card of the Company
- (e) Section IV: Form 4C for Average Annual Turnover
- (f) Bank account details, along with a cancelled cheque, for transaction through e-payment in format given at Annex IV & V in Section X.

10.1.3 **Part – III**

Complete Company Profile including the following details:

- (a) Background of the organization
- (b) Documentary evidence such as manufacturer valid registration certificate for manufacturing equipment / Authorization certificate as Dealer / Supplier and Service Provider of reputed brand of the equipment(s) for which the bidder intended to quote.
- (c) Client completion certificate on client letter head for Similar Woks executed by the Bidder in the last seven years. The submitted certificates shall comply with the conditions laid in Clause 3 of ITB (Bidder Eligibility Criteria). Such eligible projects shall be supplied in Section IV: Form 4B.

- (d) Work Order / Agreement with value and status (% completed till submission) in case of ongoing work shall be submitted separately as proof of on-going assignments as per Section IV: Form 4F
- (e) Copy of client certificate substantiating experience in maintenance of the quoted item.
- (f) List of Litigation History

10.1.4 **Part – IV**

- (a) The Bidder shall submit the Technical Bid keeping in view the scope of work listed in the ToR which must include:
 - (i) Approach to the work & methodology to be adopted.
 - (ii) Detailed Work Plan
- (b) Scanned copy of the list of experts/key personnel (Form 4E of Section IV) as well as other personnel required for carrying out all the contractual obligations.
- (c) Documentary evidence such as brochures establishing that the equipment to be supplied by the Supplier conform to the tender document.
- (d) The equipment being offered should be based on proven design. This aspect should be clearly stated in the offer.

Proven design means:

- (i) One should have executed similar order
- (ii) Should have supplied similar equipment
- (iii)Should have proven track record of timely delivery without cost overrun.
- (iv)Similar equipment supplied should have performed to the satisfaction of the owner.
- (e) Technical compliance statement of each items proposed to supply against which the tender has invited (as in the enclosed format Annex VII/VIII/IX/X in Section X).
- (f) The tenderer should provide a list of the equipment installed in various reputed Govt. / PSU's / Private sector organizations.
- (g) List of Service centers in India.
- (h) Any other details which tenderer may feel relevant to carry out the present assignment.

Note: It may be noted that the Technical Bid shall not contain any reference to any fee or charges. Violation of this clause will lead to rejection of bid.

10.2 Cover - II: Financial Bid

Financial Bid in excel format (BoQ_XXXXX) provided along with this Tender as Form Fin -2, Section V shall be used for quoting prices / offer.

- (a) This will contain fixed rate contract price to be charged for completing the work.
- (b) While working out the price, following points should be noted:
 - (i) The Bidder will have to bear the cost of mobilization of the equipment during supply, installation, testing, training (if any) & commissioning from their present location to the operation site and de-

- mobilization of the equipment whenever required. All other incidental costs during the construction and operation are also to be borne by the Bidder.
- (ii) The Bidder will have to make their own arrangements for the transportation / accommodation / TA / DA of their personnel assigned to this project. The price quoted shall also include the Bidder's representative visit to various offices, and other places for meetings, data collection, presentations, public consultation, the remuneration of the experts, secretarial staff, their salary, allowances and overhead expenditure etc.
- (iii) All duties, taxes, royalties and other levies payable by the Bidder for executing the Contract, shall be included in the rates, prices, and total Bid price submitted by the Bidder except for GST which will be paid as per existing rules and regulations at the time of payment. The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment. Further, any variation in the statutory taxes shall be accounted for the payment of differential tax amount, against submission of proof of change in Tax on work done amount. However, this would be entertained only if the Bidder has submitted its breakup with effective weightage, otherwise it would be presumed that the Bidder would absorb the same in his quote.
- (iv) The prices shall be quoted by the Bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees (INR).
- In case there is difference in submission made by the Bidder, online and in the submission made in hard copies, the online submission shall prevail over hard copy submission and the same shall be considered for evaluation.
- 10.3 The total duration of Works shall be as specified in Section III: Bid Data Sheet.

11 Extension of Bid Submission Date

11.1 The Employer may extend the date of submission of bids by issuing an addendum / corrigendum and uploading the same on Employer's website and e-procurement portal.

12 Late Proposals

12.1 Online proposals received by the Employer after the specified bid submission date & time or any extension thereof, pursuant to clause – 11 above, shall not be considered for evaluation and shall be summarily rejected.

13 Liability of the Employer

13.1 The Bidders are advised to avoid last moment rush to submit bids online and they should upload their bids well in advance before the bid submission deadline. The Employer shall not be liable for failure of online submission of bids by the Bidder that may arise due to any reason whatsoever. It shall be construed that the procedure for online submission of bids, mentioned under clause - 9 of ITB, has been read and understood by the Bidder. The submission of hard copy is not a mandatory requirement. However, if the Bidder submits hard copy of the bid, it shall not be treated as a substitute to online bids submission and in case a Bidder fails to submit bids online due to any reason, the hard copies of the bids shall not be considered for evaluation.

14 Modification / Substitution / Withdrawal of Bids

14.1 The tender once submitted may be modified, substituted or withdrawn by the bidders before the submission deadline through e-Procurement Mode as mentioned in NIT of this tender document.

No bid shall be modified, substituted or withdrawn after the deadline fixed for submission of bids.

15 Bid Opening and Evaluation Process

- 15.1 From the time the Proposals are opened to the time the Contract is awarded, the Bidders should not contact the Employer on any matter related to its Technical and/or Financial Proposal. From the time the Proposals are opened to the time the Contract is awarded, any effort by Bidders to influence the Employer in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Bidders' Proposal.
- 15.2 The Employer will constitute a Tender Evaluation Committee (TEC), which will carry out the evaluation process.
- 15.3 Online Bid opening shall be carried out in two stages. Firstly, 'Technical Bid' of all the online Bids received shall be opened on the date and time mentioned in Section III: Bid Data Sheet. 'Financial Bid' of those Bidders whose Technical Bid has been determined to be responsive and on evaluation fulfils the criteria as stipulated in the tender document, shall be opened on a subsequent date, which will be notified to such Bidders. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day. Bids for which a notice of withdrawal has been submitted in accordance with clause 14 above shall not be opened.
- 15.4 The TEC shall evaluate the Technical Proposals on the basis of their responsiveness to the ToR and by applying the eligibility & evaluation criteria, sub-criteria specified in clauses 3 and 16 of ITB. In the first stage of evaluation, a Proposal shall be rejected if it is found deficient or found not meeting the minimum eligibility criteria as mentioned in clauses 3 and 16 of ITB. Only responsive Proposals shall be further taken up for evaluation.
- 15.4.1 A Bid shall be considered responsive only if:
- (a) It is received by the Bid submission date and time including any extension thereof, pursuant to clause 11 above;
- (b) It is accompanied by the EMD & Tender Fee as specified in clauses 6.1 & 6.2 above;
- (c) It is received in the forms specified in Section IV (Technical Proposal) and in Section V (Financial Proposal). All the information shall be furnished by the Bidder in the requisite Forms sought in Section IV. Failure to submit the requisite Forms shall be treated as non-responsive and no further clarification shall be sought in this regard;
- (d) It does not contain any condition or qualification or suggestion; and
- (e) It fulfils the eligibility & qualification criteria stipulated in clauses 3 and 16 of ITB.
- 15.5 After ascertaining the responsiveness of the bid, evaluation of each responsive Bid will be done as per clause 16.2 below. To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid, giving a reasonable time for response. Employer however, is not bound to accept the clarification submitted by the Bidder if found irrelevant. The Employer's request for clarification and the response shall be in writing.
- 15.6 The Employer shall inform the Bidders, whose Technical Bids are found responsive and on evaluation fulfils the criteria stipulated in the tender document, of the Date, Time and Place of opening of the

Financial Bids. The Bidders so informed, or their representative, may attend the meeting of online opening of Financial Bids.

- 15.7 At the time of the online opening of the Financial Bids, the names of the technically qualified Bidders along with the Bid prices, the total amount of each Bid, and such other details as the Employer may consider appropriate will be announced by the Employer at the time of Bid opening.
- 15.8 The Bidder may, if deemed necessary by him, send a representative to attend the financial bid opening. Such representative shall have a letter of authorization from the Bidder to attend the bid opening on its behalf.

16 Qualification Criteria & Bid Evaluation

16.1 **Minimum Qualification Criteria**

To qualify for this tender, the Bidder must satisfy each of the qualifying criteria stipulated in Clauses 16.1.1 to 16.1.3 of ITB. Not satisfying any of the qualification criteria shall render the bid non-responsive and financial bids of such Bidders shall not be opened.

16.1.1 Qualification Criteria for Works

The Bidder should have successfully completed "Similar Works" in previous 7 years before the last date of the Bid submission as per the criteria specified below:

- (a) 3 similar completed works each costing not less than the amount equal to 40% of the estimated cost put to this tender, or
- (b) 2 similar completed works each costing not less than the amount equal to 50% of the estimated cost put to this tender, or
- (c) 1 similar completed work costing not less than the amount equal to 80% of the estimated cost put to this tender

Note: The value of the "Completed Work(s)" considered by the Bidders shall be rounded off to the nearest two digits

For this purpose, "Similar Works" has been defined in Section III: Bid Data Sheet.

Note: If the bidder wishes to quote for more than one schedule, then consolidated estimated cost for all such schedules shall be considered.

16.1.2 Qualification Criteria for Average Annual Turnover for last three (03) financial years, i.e. 2017-18, 2018-19 and 2019-20 and duly certified by the Statutory Auditor on the letter head of Chartered Accountant/Statutory Auditor as indicated in Section IV: Form - 4C.

At least 100% of the estimated cost put to this tender to qualify for this work.

Note: If the bidder wishes to quote for more than one schedule, then consolidated Average Annual Turnover for all such schedules should be submitted.

16.1.3 Qualification Criteria for Bid Capacity

- (a) The Bidder shall submit the details asked for the Bid Capacity as per the format prescribed in Section IV: Form 4L of the tender document;
- (b) The Bid Capacity of the Bidder must be equal to or more than the estimated cost put to this tender;

- (c) In case the Bid Capacity of the Bidder is less than the estimated cost of the work, his bid shall be cancelled and such Bidder shall not be considered for opening of Financial Bid even if he has been determined eligible in other criteria's set forth in the tender document; and
- 16.1.4 In case a Bidder fails to meet the eligibility criteria stipulated in clause 3 of ITB along with above mentioned minimum qualification criteria, the further process for technical evaluation will not be carried out and such bids shall be treated as non-responsive.

16.1.5 Qualification Criteria for Work Plan and Methodology Statement

- i. The Bidder shall submit the work plan indicating the design, construction, supply, installation, testing and commissioning schedule in bar chart format.
- ii. The bidder shall also furnish the details manpower & equipment available with him, for the construction and installation of equipment.
- iii. The Consultant shall incorporate the principles of Life Cycle cost in the design in line with GFR Rules 2017-Rule No 136 (Principles of Life Cycle Cost and accomplished Advance/ Latest Technologies and innovative materials & Finishes (other than conventional Technologies/materials) proposed to be used in the Project. The proposed Life Cycle Cost analysis and new technology (ies) should demonstrate the time and /or cost effectiveness.)

16.2 **Bid Evaluation**

- 16.2.1 The Bids shall be evaluated based on the eligibility & qualification criteria mentioned in clauses 3, 10 and 16 of ITB. In case a Bidder fails to meet the above mentioned eligibility & qualification criteria, their bids shall be treated as non- responsive and financial bids of such Bidders shall not be opened.
- 16.2.2 A substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the tender document without material deviation or reservation. A material deviation or reservation is one:
- (a) that affects in any substantial way the scope, quality, or performance of the Works;
- (b) that limits in any substantial way, inconsistent with the tender document, the Employer's rights or the Bidder's obligations under the contract; or
- whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive bids. Further, a bid will not be considered substantially responsive if the Bidder has not offered to undertake all the items of the work as listed in Bill of Quantity (BoQ) of Section V of the tender document.
- 16.2.3 The estimated effect of price adjustment (if any) provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account while evaluating bids.
- 16.2.4 The lowest priced bidder i.e. L-1 shall be chosen for the award of the work based on the grand total amount quoted by the Bidders in BoQ of Section V.
- 16.2.5 If the bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded as compared to the estimate of the items of work to be performed under the Contract, the Bidder shall be asked to produce detailed price analysis for any or all items of the BoQ, to demonstrate the internal consistency of those prices with the supply & service methods and operating methodology proposed. After evaluation of the price analysis, taking into consideration the schedule of estimated Contract payments, price may be negotiated with the lowest Bidder to remove the imbalance, make an

- appropriate adjustment on sound technical and/or financial ground for any quantifiable, acceptable aspects and thereby bring the prices to justified level sufficient to protect the Employer's interest, before taking a decision on the bid
- 16.2.6 If during the execution of the works, deviation / variation takes place to the extent of amount exceeding more than 20% of the accepted contract value, the Contractor at the written request of Engineer-In-Charge (EIC), shall promptly increase the value of the Performance Bank Guarantee.

17 Award of Contract

- 17.1 The Employer shall issue a LoA to the selected Bidder. It may also notify all other Bidders about the decision taken (if requested by other Bidders).
- 17.2 The Contractor will sign the Contract after fulfilling all the formalities / pre-conditions mentioned in the General Conditions of Contract in Section VII including submission of Performance Bank Guarantee, within 15 days of issuance of the LoA.
- 17.3 The Contractor is expected to commence the Assignment / job at the location specified in Section III: Bid Data Sheet.

18 Ownership of Document and Copyright

- 18.1 All the deliverables and study outputs including primary data shall be compiled, classified and submitted by the Contractor to the Employer in hard copies and editable soft copies in addition to the requirements for the reports and deliverables indicated in the Scope of Work / ToR.
- 18.2 The study outputs shall remain the property of the Employer and shall not be used for any purpose other than that intended under these Terms of Reference without the prior written permission of the Employer. In the case of any deliverables by Contractor consisting of any Intellectual Property Rights ("IPR") rights of the Contractor, the Contractor shall provide the Employer with necessary irrevocable royalty-free license to use such IPR. Further, for the avoidance of any doubt, it is clarified that any intellectual property developed during the course of, or as a result of, the services rendered in relation to the works, shall be and remain property of the Employer.

19. **Insurance**

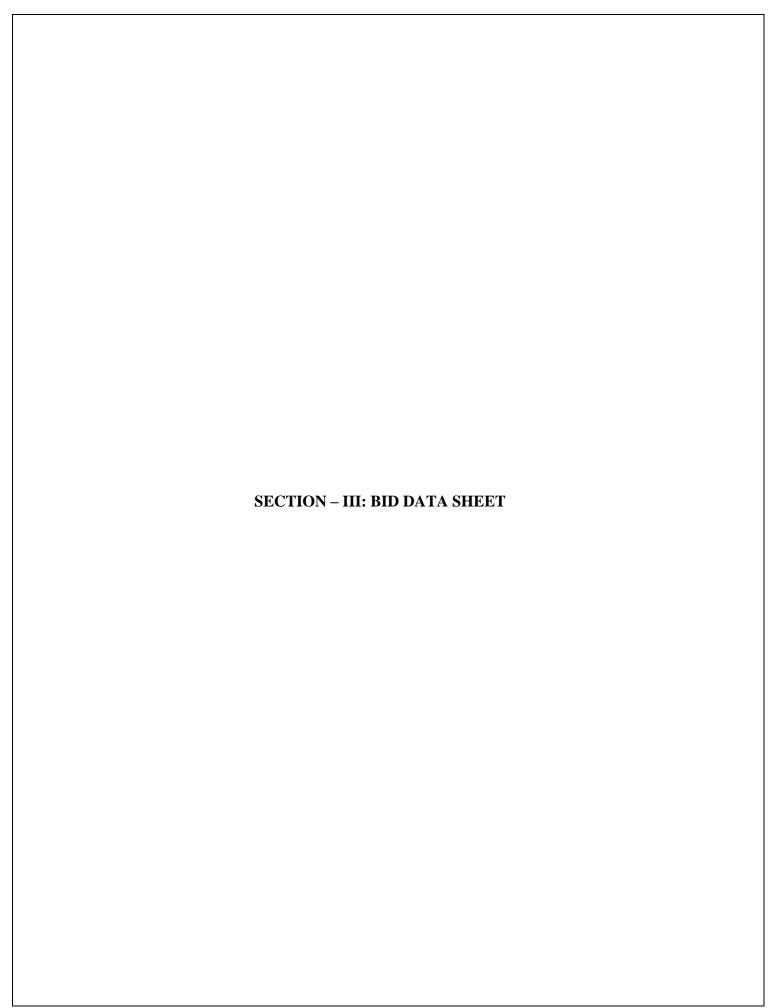
19.1 The Consultant shall maintain at his own cost personal and accident insurance for all his Personnel and property as considered satisfactory by the Client to cover any risks arising from work and services to be rendered by the Consultant under this Consultancy Agreement. The Consultant shall ensure the same for his sub-Consultants also. Client shall not be responsible for any such events or effects thereof. A statement to this effect may be submitted with the offer.

20. Indemnity

20.1 It shall be deemed that by submitting the Bid, the Bidder agrees and releases the Employer, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.

21. Fraud and Corrupt Practices

- 21.1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this Tender for Consultancy, the Employer shall reject a Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Employer shall, without prejudice to its any other rights or remedies, forfeit the Bid Security or Performance Security, towards damages payable to the Employer for, inter alias, time, cost and effort of the Employer, in regard to the Tender for Consultancy, including consideration and evaluation of such Bidder's Proposal.
- 21.2 Without prejudice to the rights of the Employer under Clause 19 (Insurance) hereinabove and the rights and remedies which the Employer may have under the LOA or the Agreement, if a Bidder or Consultant is found by the Employer to have directly or indirectly or through an agent, engaged or indulged in any prohibited practices during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Bidder or Consultant shall not be eligible to participate in any tender or Tender for Consultancy issued by the Employer during a period of two years from the date such Bidder or Consultant, as the case may be, is found by the Employer to have directly or through an agent, engaged or indulged in any prohibited practices, as the case may be.

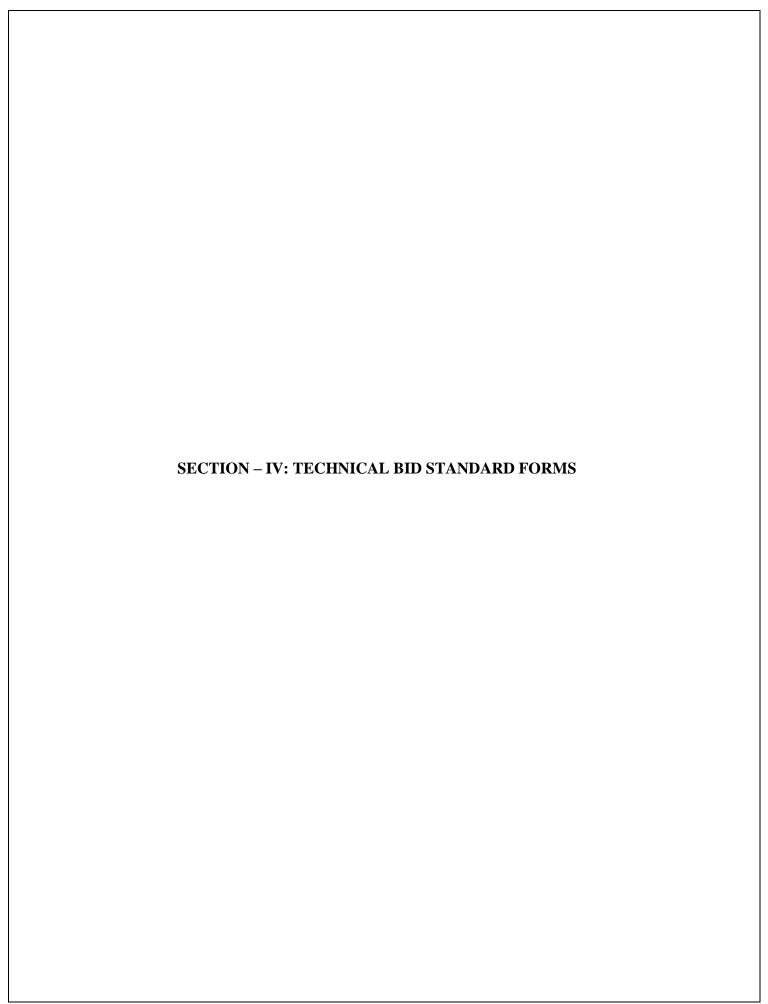


SECTION III: BID DATA SHEET

Reference	Particulars	Description			
ITB 2.1	Employer	The Chairperson, Inland Waterways Authority of India (IWAI), A-13, Sector-1, Noida-201301			
ITB 2.1	Method of Selection	Least Cost System (LCS) selection method			
ITB 2.2	Name of the Assignment / Job	Procurement of Survey Equipment			
ITB 2.3	a) Last Date & time	Date : 15.11.2021			
	for submission of	Time: Latest by 1530 Hrs (IST)			
	Bid	Submission : online submission			
	and	Address: Hydrographic Chief, Inland Waterways Authority of India (IWAI),			
	b) Address for	A-13, Sector-1, Noida-201301			
	submission of hard				
	copy of PoA &				
	payment instruments				
	(Tender Fee &				
	EMD)				
ITB 4	Pre-Bid Meeting	NIL			
ITB 5.1	Last date for seeking	Date : 01.11.2021			
	clarifications	Time: 1800 hrs			
		Email Id: <u>hc.iwai@nic.in</u>			
-	Estimated cost of	Schedule 'A' – INR 23.07 Lakhs			
	this work	Schedule 'B' – INR 9.0 Lakhs			
		Schedule 'C' – INR 8.4 Lakhs			
		Schedule 'D' – INR 1.0 Lakhs			
ITB 6.1	EMD	Schedule 'A' – INR 46,140.00 (i.e. 2% 0f estimated cost of work)			
		Schedule 'B' – INR 18,000.00 (i.e. 2% 0f estimated cost of work)			
		Schedule 'C' – INR 16,800.00 (i.e. 2% 0f estimated cost of work)			
		Schedule 'D' – INR 2,000.00 (i.e. 2% 0f estimated cost of work)			
		If the bidder wishes to quote for more than one schedule, then consolidated			
		EMDs for all such schedules should be submitted. However, Micro and			
		Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by			
		Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as			
		recognized by Department for Promotion of Industrial and Internal Trade			
		(DPIIT) are exempt from submitting the EMD, on submission of documents			
		to the extent as per the Government of India notifications.			
		As per OM dated 12.11.2020 of department of Expenditure, on account of			
		slowdown in economy due to the pandemic, there is no provision regarding			
		Bid-security (Earnest money Deposit)			

Reference	Particulars	Description	
ITB 6.2	Tender Fee	INR 1,000+ 18 % GST /- i.e. INR 1000/- + 180/- = INR 1180/ (Rs. One	
		Thousand One Hundreds Eighty Only) for each Schedule	
		However, Micro and Small Enterprises (MSEs) as defined in MSE	
		Procurement Policy issued by Department of Micro, Small and Medium	
		Enterprises (MSME) or Start-ups as recognized by Department for Promotion	
		of Industrial and Internal Trade (DPIIT) are exempt from submitting the	
		tender fee / cost of tender document, on submission of documents to the extent	
		as per the Government of India notifications.	
		Tender fee for the amount mentioned above shall be deposited to IWAI Fund	
		through RTGS / NEFT in the following account:	
		(i) Name of Bank Account: IWAI Fund	
		(ii) Bank Name and Address: Punjab National Bank, Sector-18, Noida	
		(iii) Bank Account number: 3702000100833867	
		(iv) IFSC: PUNB0370200	
		If the bidder wishes to quote for more than one schedule, then	
ITTD 6.0	M D 1	consolidated Tender Fee for all such schedules should be submitted.	
ITB 6.3	Minimum Bank	Schedule 'A' – INR 9,22,800.00 (i.e. 40% of estimated cost of work)	
	Solvency	Schedule 'B' – INR 3,60,000.00 (i.e. 40% of estimated cost of work)	
		Schedule 'C' – INR 3,36,000.00 (i.e. 40% of estimated cost of work)	
		Schedule 'D' – INR 40,000.00 (i.e. 40% of estimated cost of work)	
		Bank Solvency certificate should not be older than one (1) year from the Bid submission last date from a nationalized/scheduled bank in India	
		If the bidder wishes to quote for more than one schedule, then consolidated	
		Bank Solvency for all such schedules should be submitted.	
ITB 6.7	Bid Validity Period	120 days after last date of Bid Submission	
	Similar Works	"Similar Works" means "Supply, Installation, Testing, Training,	
ITB 16.1	Similar Works	Commissioning and Services of Hydrographic Survey Marine	
112 10.1		Equipment(s)".	
ITB 6.9	JV / Consortium	No	
ITB 10.1	Authorised	Name: Hydrographic Chief	
	Representative	Email Id: hc.iwai@nic.in	
ITB 10.3	Contract Duration	As per Section-VI	
ITB 15.3	Bid Opening date	Date : 16.11.2021	
		Time: 1600 hrs	
ITB 17.3	Location of	State of Assam, Andhra Pradesh and Kerala.	
	Assignment		
-	Price Preference	Since Splitting of scope / quantity of work is not feasible keeping in view the	
		nature of work involved, price preference clause for MSE registered firms /	
		Bidders will not be applicable.	
-	Make in India	As per policy of Govt. of India to promote Make in India, the provisions vide	
		order no. P-45021/2/2017-B.E-II dated 15.06.2017 on the subject "Public	

Reference	Particulars	Description
		procurement (preference to Make in India)" shall be applicable to the extent possible.
-	Performance Security	3% of the quoted amount in the form of irrevocable Bank Guarantee from nationalized / scheduled bank of India
		As per OM dated 12.11.2020 of department of Expenditure, on account of slowdown in economy due to the pandemic, it has been decided to reduce the percentage to 3% of the value of contract for all tenders/contracts issued/concluded till 31.12.2021
-	Security Deposit	5% of the contract value in terms of the General Conditions of Contract including EMD
3.7	The estimated number of Key Personnel Required	As per Form 4E
-		FORM 4A: Letter of bid / Form of Tender
		FORM 4B: Eligible Projects
		FORM 4C: Average Annual Turnover
		FORM 4D: Power of Attorney (for authorized representative of the bidder)
		FORM 4E: List of Key Personnel
		FORM 4F: List of Ongoing assignments
		FORM 4G: Declaration by the Bidders
		FORM 4H: Bidders Information Sheet
		FORM 4I: Format for Pre-bid queries / Clarifications by bidders



FORM 4A: LETTER OF BID / Form of Tender

(To be submitted on the letter head of the Bidder)

To,
Hydrographic Chief
IWAI, A-13, Sector -1,
Gautam Buddha Nagar
NOIDA - 201301, U.P.

Sub: Procurement of Survey Equipment

Dear Sir,

- 1. Having examined the information and instructions for submission of tender, General & Special Conditions of Contract, Technical, General and detailed specifications, Bill of Quantities (BoQ) agreement and bank guarantee forms, etc. for the above named works, I/ We(Name of Bidder) hereby tender for execution of the works referred to in the tender document in conformity with the said Conditions of Contract, Schedule of quantities for the sum as stated in BoQ of this tender document or such other sum as may be ascertained in accordance with the said conditions of contract.
- 2. I/We undertake to complete and deliver the whole of the works comprised in the Contract within the time as stated in the tender and also in accordance in all respects with the specifications, Scope of work and instructions as mentioned in the tender document.
- 3. I / We am / are tendering for the works mentioned in the table below and submitting the EMD in the form of RTGS / NEFT in favour of IWAI Fund payable at Noida from Nationalised / Scheduled bank of India as per the details given therein:

S. No.		RTGS / NEFT		
	Amount (INR)	Details of RTGS / NEFT (No. and Date) and details of the bank (Name of bank, branch, address)		
1				

- 4. I/ We agree to abide by this tender. I/ We agree to keep the tender open for a period of 120 days from the last date of Bid Submission or extension thereto as required by IWAI and not to make any modifications in its terms and conditions.
- 5. I/ We agree, if I/ we fail to keep the validity of the tender open as aforesaid or I/ we make any modifications in the terms and conditions of my/ our tender, if I/ We fail to commence the execution of the works as above, I/ We shall become liable for forfeiture of my/ our EMD, as aforesaid and IWAI shall without any prejudice to another right or remedy, be at the liberty to forfeit the said EMD absolutely otherwise the said EMD shall be retained by IWAI towards part of security deposit to execute all the works referred to in the tender document upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered. Should this tender be accepted,

- I/ We agree(s) to abide by and fulfil all the terms and conditions and provisions of this tender. No interest is payable on EMD and/ or Security Deposit.
- 6. I/ We have independently considered the amount of Liquidated Damages shown in the tender hereto and agree that it represents a fair estimate of the loss likely to be suffered by IWAI in the event of works not being completed in time.
- 7. If this tender is accepted, I/ We undertake to enter into execute at my/ our cost when called upon by the employer to do so, a contract agreement in the prescribed form. Unless and until a formal Agreement is prepared and executed, this tender together with your written acceptance thereto shall constitute a binding contract.
- 8. If my/ our tender is accepted, I/We am/are to be jointly and severely responsible for the due performance of the Contract.
 - 9. I/We also declare that the firm has not been banned or blacklisted by any Govt. or its department or any Quasi Govt. agency or Public Sector Undertaking of India or India or Multilateral or International Aid Agency/Development Bank. Any such discovery by IWAI at any stage of the tender/contract may result in disqualification of the firm or cancellation of the contract.
- 10. I/ We understand that IWAI is not bound to accept the lowest or any tender it may receive and may reject all or any tender without assigning any reason.
- 11. I/ We certify that the tender submitted by me / us is strictly in accordance with the terms, conditions, specifications etc. as contained in the tender document, and it is further certified that it does not contain any deviation to the aforesaid documents.

Date	Signature
	Name
	Designation
	duly authorized to sign & submit bid for an on behalf of
	(Name and address of firm)
	M/s
	Telephone no'sFAX No
	Email ID:

FORM 4B: ELIGIBLE PROJECTS

(To be submitted on the letter head of the Bidder)

Format for Responsiveness of Bid (Eligible Projects) Project Specific Experience

[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually as a corporate entity or as one of the major companies within an JV for carrying similar works under this assignment.]

"Similar Works¹" have been defined in Section III: Bid Data Sheet

S. Client No. Name ² , Name of work & location of project	Contract Value in INR Financial ³ value of similar work satisfactorily completed	Date of start of work	Scheduled completion date	Actual completion date	Details of work (including Similar Work).	Remarks

Firm's Name	:
Authorized Signatur	e :

Section VII: General Conditions of Contract (GCC)

¹ Exhibit only those projects completed in the last Seven (7) years from the **Last Date of Bid Submission**.

² The Bidder shall submit proof of experience from the Client for meeting the minimum qualification details. The Client Certificate submitted by the Client shall contain the details as enlisted in Clause 3.2 of ITB. The works claimed by the Bidder, if not supported with proof of completion as laid down under Clause 3.2 of ITB from the Client will not be considered.

³ Against the Contract of works having several components other than the Similar Works, only the relevant component shall be evaluated for contract value, payment value and the actual execution period for the relevant component only should be submitted / specified.

Notes:

- 1. For the purpose of evaluation, Bidders should assume 7% inflation for Indian Rupees every year simple annually.
- 2. Bidders should mention the maximum value of similar works as defined in Clause 16.1.1 of ITB executed during the last seven years (adjusted last day of the month previous to the one in which this Tender is invited).
- 3. In case of foreign currency, it should first be escalated at the rate mentioned above and then the amount so derived shall be converted to INR at the exchange rate prevailing last day of the month previous to the one in which this Tender is invited.
- 4. Exchange rate should be taken from official website of RBI (https://www.rbi.org.in/scripts/ReferenceRateArchive.aspx)
- 5. In case exchange rate for the currency in consideration, is not available on RBI website (mentioned above), Bidders shall quote exchange rates from websites such as www.vee.com, along with copy of the exchange rate used by the Bidder for the conversion.
- 6. Any additional comments / information to substantiate that the said work conforms to the specified similar works can also be indicated by the Bidder, as deemed fit.

Please limit the description of each project in two A4 size sheet of paper. Descriptions exceeding two (02) A4 size sheet of paper may or may not be considered for evaluation.

FORM 4C: AVERAGE ANNUAL TURNOVER

(To be submitted on the letter head of Chartered Accountant / Statutory Auditor)

Sl. No.	Financial Years	Annual Turnover in INR
1.	2017-18	
2.	2018-19	
3.	2019-20	
4.	Total (1+2+3)	
5.	Average Annual Turnover	[indicate sum of the above figures divided by 3]

Certificate from the Statutory Auditor

This is to certify that	[Name of the Firm] [Registered Address] has	received the
payments shown above agai	nst the respective years.		

Name of Authorized Signatory

Designation:			

Name of Firm:

(Signature of the Statutory Auditor & Seal of the Firm)

Note:

- 1. In case the Consultant does not have a statutory auditor, it may provide the certificate from a practicing chartered accountant.
- 2. This Form shall be submitted on the letter head of the CA / Statutory Auditor

FORM 4D: POWER OF ATTORNEY

(for authorized representative of the bidder)

(To be executed on non-judicial stamp paper of Rs. 100 and duly notarised. The stamp paper to be in the name of the company who is issuing the Power of Attorney)

Know all men by these presents, We,
AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.
IN WITNESS WHEREOF WE, THE ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20**
For
(Signature, Name, Designation and Address)
Witnesses:
1
Accepted
(Signature, name, designation and address of the Attorney)
Notes:

Page 35 of 141

_	1.	The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
2	2.	Wherever required, the Bidder should submit for verification the extract of the charter documents and other documents such as a resolution / power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.
		For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.

FORM 4E: List of Key Personnel

Sr. No.	Position / Role	No.
1		
2		
3		
4		
5		
6		
7		

Note:

- 1. The list of key personnel with their designation and expertise is to be furnished by the Bidder. The Bidder can propose the key personal required for as per the scope defined in the Tender Document. A brief CV of the proposed person shall be submitted.
- 2. During the tenure of contract if need arise, then the Bidder is allowed to change / replace the Key Personnel with a prior approval from Engineer-in-charge.

FORM 4F: List of Ongoing Assignments

Sl. No.	Full Postal Address of Client & Name of officer- in- charge	Description of the work	Total Contract Value	Value of the work completed till last date of the previous month from the Bid Submission Date	Outstanding / Balance Value of the work till last date of the previous month from the Bid Submission Date	Date of commence- ment of work	Scheduled completion period	_	Expected date of completion

FORM 4G: DECLARATION BY THE BIDDERS

(To be submitted on the letter head of the Bidder)

To,	Date:	
Inland A-13, S	graphic Chief, Waterways Authority of India, ector – 1, Noida - 201 301, - Gautam Buddha Nagar (U.P.)	
	Reference No:	
Dear Si	-,	
This is declarat	with reference to the above mentioned tender document. We hereby make tions:	he following
1.	No alteration has been made in any form in the tender document downloaded from the website of IWAI and e-procurement portal.	
2.	I/We have not been banned or de listed by any Government or quasi Government agency or public sector undertaking.	
3.	I/We confirm that neither we have failed nor we have been expelled from any project or agreement during the last 03 years	
4.	I/We accept the payment terms of clause 15.2 of General Conditions of Contract.	
5.	I / We provide our acceptance to all the Terms and Conditions of this tender document.	
6.	Acknowledgment by Bidder as per Clause 8 of ITB	
7.	I / We agree to disqualify us for any wrong declaration with respect to the submissions made by us for this tender and reject my/our tender summarily	

8.		I / We agree to disqualify us from this tender and black list us for tendering in IWAI projects in future, if it comes to the notice of IWAI that the documents/submissions made by me/us are not genuine
9.		I / We confirm that I/we have noted / updated ourselves of all amendments / corrigendum / response to pre-submission queries etc. and bid is submitted incorporating the same.
		Yours Faithfull
[a t a•	Dlagge	(Signature of the Bidder, with Official Seal
ote:	Please	e Tick the appropriate box in the above table.

FORM 4H: BIDDER INFORMATION SHEET

(To be submitted on the letter head of the Bidder)

Bidder name:
[insert full name]
Bidder's Party name:
[insert full name]
Bidder's Party country of registration:
[indicate country of registration]
Bidder's year of constitution:
[indicate year of constitution]
Bidder's legal address in country of constitution:
[insert street/ number/ town or city/ country]
Bidder's authorized representative information
Name: [insert full name]
Address: [insert street/ number/ town or city/ country]
Telephone/Fax numbers: [insert telephone/fax numbers, including country and city codes]
E-mail address: [indicate e-mail address]
1. Attached are copies of original documents of
Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above
☐ In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status
2. Included are the organizational chart, a list of Board of Directors, and the Beneficial Ownership.
Yours Faithfully

(Signature of the Bidder, with Official Seal)

Note:

This Form shall be supplied with Identity proof of the authorized representative

FORM 4I: FORMAT FOR PRE BID QUERIES / CLARIFICATIONS BY BIDDERS

(To be submitted on the letter head of the Bidder)

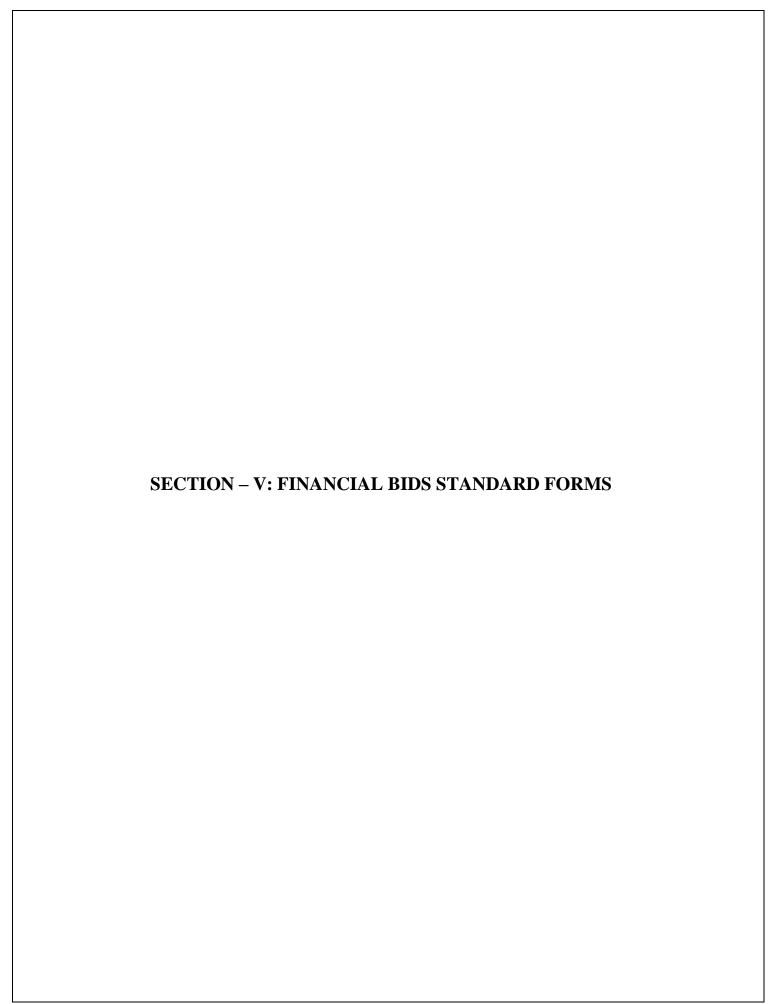
	Pre – Bid Queries / Clarifications			
S. No.	Section Number, Clause Number, Sub Clause Number and Page Number of Tender Document	Tender clause description	Query / Suggestion / Clarification sought	
1.				
2.				
3.				
4.				
5.				
6.				
•				
•				

Yours Faithfully

(Signature of the Bidder, with Official Seal)

Name of Bidder:

Date of Submission:



FORM FIN – 1: FINANCIAL BID SUBMISSION FORM

[Location, Date]
To: [Name and address of Employer]
Dear Sir:
We, the undersigned, offer to provide the services for the Assignment / Job for [Insert title of Assignment/Job] in accordance with your notice inviting tender dated [Insert Date] and our Technical Bid. Our attached Financial Bid is for the sum of [Insert amount(s) in words and figures]. This amount is inclusive of all types of taxes (such as Income tax, duties, fees, levies etc.) excluding Goods & Service Tax (GST) [Insert amount(s) in words and figures]. We hereby confirm that the financial Bid is unconditional and we acknowledge that any condition attached to Financial Bid shall result in rejection of our Financial Bid / Bid as a whole.
Our Financial Bid shall be binding upon us subject to the modifications resulting from Contract negotiations (if any), up to expiration of the validity period of the Bid, i.e. before the date indicated inclause
We understand you are not bound to accept any Bid you receive.
Yours sincerely,
Authorized Signature [In Full and initials]:
Name and Title of Signatory: Name of Firm:

Form Fin – 2A: Summary of Costs – BoQ1 $\mbox{(All amount in INR) - To be submitted Online in xls. Format }$

Quantity **Particulars** Sr. **UNIT Rate** Amount (in Amount (in Figures) No. (INR) Words) **Procurement of Single** 02 nos. A. **Beam Echo Sounder With** Transducer with complete accessories as per scope of work including supply of Hardware's, installation, training testing, and commissioning GST B. **Grand Total**

Authorized Signature	
Name	:
Designation	:
Name of Firm	:
Address	:

Form Fin -2B: Summary of Costs -BoQ1

(All amount in INR) - To be submitted Online in xls. Format

Sr. No.	Particulars	Quantity	UNIT Rate (INR)	Amount (in Figures)	Amount (in Words)
A.	Procurement of Heading DGPS cum Beacon Receiver for survey and Navigation with complete accessories as per scope of work including supply of Hardware's, installation, testing, training and commissioning	01 no.			
В.	GST				
	Grand Total				

Authorized Signature	
Name	:
Designation	:
Name of Firm	:
Address	•

$Form\ Fin-2C:\ Summary\ of\ Costs-BoQ1$ (All amount in INR) - To be submitted Online in xls. Format

Sr. No.	Particulars	Quantity	UNIT Rate (INR)	Amount (in Figures)	Amount (in Words)
A.	Procurement of DGPS RECEIVER with complete accessories as per scope of work including supply of Hardware's, installation, testing, training and commissioning	02 nos.			
B.	GST				
	Grand Total				

Authorized Signature	
Name	:
Designation	:
Name of Firm	:
Address	:

$\label{eq:FormFin-2D:Summary of Costs-BoQ1} % \end{submitted Costs-BoQ1}$ (All amount in INR) - To be submitted Online in xls. Format

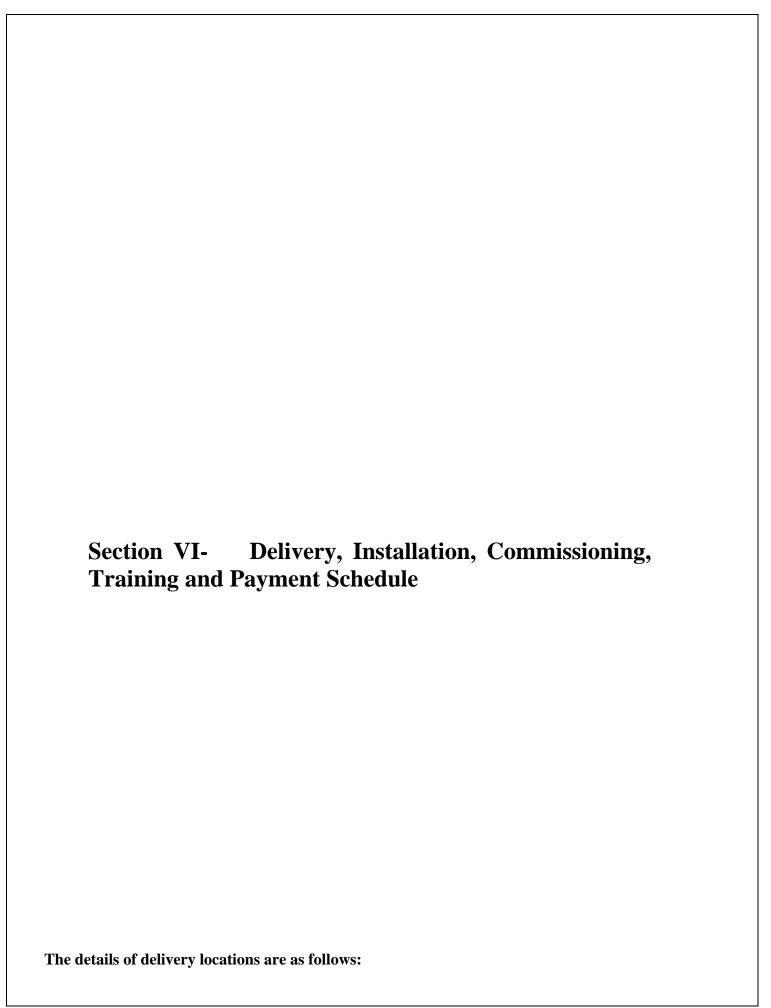
Sr. No.	Particulars	Quantity	UNIT Rate (INR)	Amount (in Figures)	Amount (in Words)
A.	Procurement of Handheld GPS with complete accessories as per scope of work including supply of Hardware's, installation, testing, training and commissioning	01 no.			
B.	GST				
	Grand Total				

Authorized Signature	
Name	:
Designation	:
Name of Firm	:
Address	•

Notes:

- a) During Financial Bid Evaluation, for selection of lowest Bidder, estimated quoted cost including all other taxes including GST would be considered. However, GST would remain effective as per the Government Guidelines, which shall be paid as per the provisions effective at the time of release of payments.
- b) The rate quoted by the Bidder shall be inclusive of the cost of labour, materials, tools & plant and specialized machinery for completing the various components of the project and all operations connected therewith, under all conditions of site, moisture and weather etc.
- c) The quantities indicated in the BoQ (Form 2B) are indicative only and may vary as per site conditions and requirement of work as per the directions of the EIC.
- d) The bidder shall indicate in the Price Schedules specifying all items prices shown therein including the unit prices and total prices of the goods and related services along with GST or any other duties and taxes applicable against the schedule of requirements. GST if liveable shall be paid as applicable. Any statutory variation shall be paid on submission of documentary evidence. Bidders shall be required to quote HSN code and applicable tax rates.
- e) "GST" means all four Acts CGST, SGST, UTGST, IGST and any other regulations by Government in relation to GST and rules thereto.
- f) No Form C/D, Road permit, way bill, any tax exemption certificate or 31/32 will be provided by the Authority.
- g) Import License and Foreign exchange required, if any, shall be arranged by the Bidder himself.

Authorized Signature	
Name	:
Designation	:
Name of Firm	:
Address	:



	SCHEDULE 'A'			Delivery Period (from the date of issue of LoA)	Installation and commissioning period (from the date of issue of LoA)	*Training period
1	Single Beam Echo Sounder With Transducer			Seventy Five Days	One hundred five days	One day
1.1	NW-16 (SO Silchar) (RO Guwahati)				-	
	Director, IWAI, Pandu Port Complex, Pandu, Guwahati-781012 Fax: 0361- 2570099,2570011, Ph: 0361-2570109, 2676925,27,29; E-mail: iwaighy@yahoo.co.in	No.	1			
1.2	NW-3 (RO Kochi)					
	Director, IWAI, National Waterway Road, N.H. 47 Bye Pass, Kannadikkadu Maradu, Ernakulam - 682 304, Telefax: 0484-2389445, Ph: 0484-2389804, 2389208; E-mail: iwai kochi@yahoo.co.in dirkoc.iwai@nic.in	no.	1			
	SCHEDULE 'B'		r			
2	Heading DGPS cum Beacon Receiver for survey and Navigation			Seventy Five Days	One hundred five days	Two days
2.1	NW-2 (RO Guwahati) Director, IWAI, Pandu Port Complex, Pandu, Guwahati-781012 Fax: 0361- 2570099,2570011, Ph: 0361-2570109, 2676925,27,29; E-mail: iwaighy@yahoo.co.in	Nos.	1			
SCHEDULE 'C'						
3	DGPS Receiver			Seventy Five Days	One hundred five days	One day
3.1	NW-16 (SO Silchar) (RO Guwahati) Director, IWAI, Pandu Port Complex, Pandu, Guwahati-781012 Fax: 0361- 2570099,2570011, Ph: 0361-2570109, 2676925,27,29; E-mail: <u>iwaighy@yahoo.co.in</u>	No.	1			

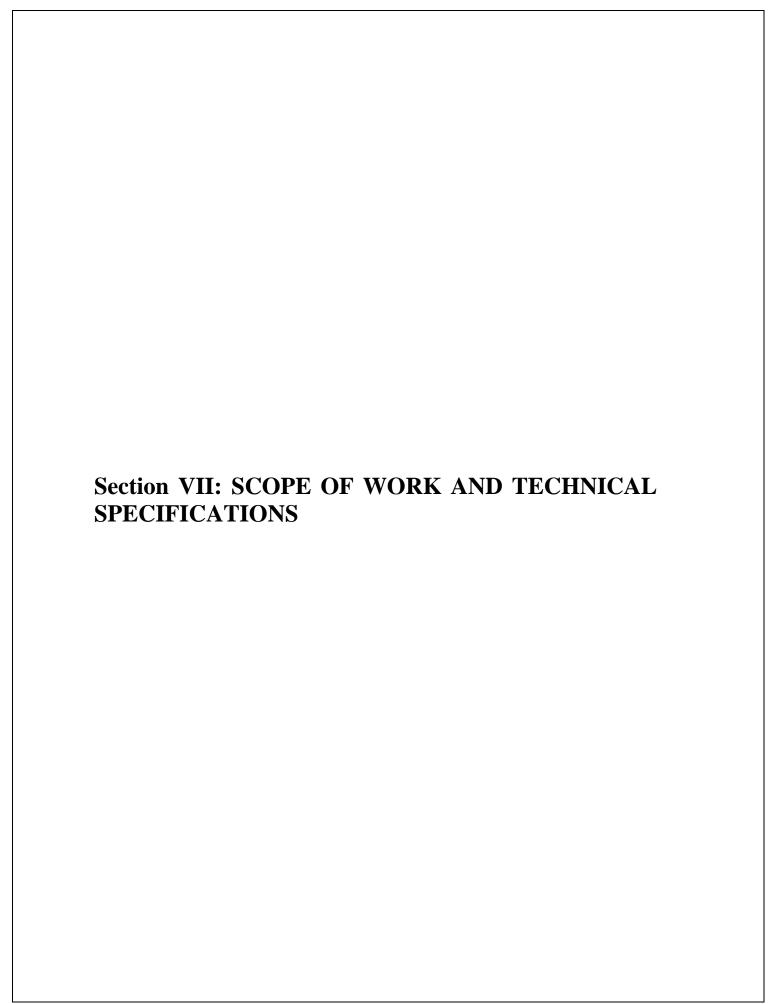
3.2	NW-4 (RO Vijayawada)	Nos.	1			
	Director, IWAI, Executive Quarter B-					
	1: K.E. Banglow Compound, State					
	Guest House Road, Governorpet					
	,Vijaywada, Krishna District ,(A.P.) -					
	520002.					
	E-mail: <u>iwainw4@gmail.com</u>					
	SCHEDULE 'D'					
4	Handheld GPS			Seventy Five Days	One hundred five days	One day
4.1	NW-4 (RO Vijayawada)	Nos.	1	·	·	
	Director, IWAI, Executive Quarter B-					
	Director, IWAI, Executive Quarter B- 1: K.E. Banglow Compound, State					
	1: K.E. Banglow Compound, State					
	1: K.E. Banglow Compound, State Guest House Road, Governorpet					

• Training is to be imparted within 15 days of commissioning of the equipment.

(B) Payment Terms: Payment shall be made in Indian Rupees in the following manner:

Stages	Description of works	Percentage of contract value including GST (Part payment will be made for individual site)
1.	Against Supply of Goods shall be released after 30 days of the successful Delivery of the instruments/Equipment as per Schedule of Requirements. For the equipment supplied at various locations, the supplier will furnish the invoice for supply of goods duly certified by the Officer-in-Charge of IWAI for supply of goods. The respective Officer-in-Charge of the authority or their representative would certify the delivery challan and invoice within 15 days of completion of delivery.	80%
2.	Against installation, training (if specified) and commissioning. For the equipment tested & commissioned at various locations, the supplier will furnish the installation & commissioning report duly certified by the Officer-in-Charge of IWAI for installation & commissioning. The respective Officer-in-Charge of the authority or their representative would certify the installation & commissioning report within 15 days of completion of installation & commissioning.	20%

Note: This tender, finalized by IWAI, shall be inclusive of cost of labour, materials, tools and plant and specialized machinery for completing various components of the project and all operations connected therewith, under all conditions of site, moisture and weather etc. The rate shall be inclusive of all taxes and duties, supply and carriage of materials, plants and machinery, Octroi, toll, royalties, incidental charges, local taxes, patent rights etc. Thus, the quoted rates shall be inclusive of all components / items of work. Royalties, levies, local taxes, incidental charges etc., whenever applicable shall be paid by the Contractor to the respective authorities and no claim whatsoever on this shall be entertained by the Employer.



INTRODUCTION

IWAI is conducting routine hydrographic Surveys in designated NWs. For this purpose, IWAI intends to procure Hydrographic Survey Equipment for its various offices across NW-2, NW-3, NW-4 and NW-16 at locations indicated in Section-VI.

SCHEDULE 'A': SINGLE BEAM ECHO SOUNDER WITH TRANSDUCER

Single frequency Hydrographic Echo sounder for installing in the survey launches & boats.

- Suitable for minimum 8 hours continuous operation.
- Compatible with Hydrographic Survey Softwares like Hypack Max/PDS or other reputed international brands with continuous recording in the computer.
- **Operating Frequency**: 190-225 KHz (Dual Frequency optional with Operating frequency from 24 KHz to 225 KHz).
- Built-in digitizer (Optional).
- **Depth range**: 0.2-60m or higher with selectable intermediate range.
- **Depth Resolution:** 1 cm
- **Depth accuracy:** +/- 0.5% of measured depth
- **Draft offset**: User configurable
- **Sound Velocity:** 1400-1600 meters/second
- **LCD Display:** Back-lighting: Electro-luminescent
- RS232/ 422 Output
- GPS/ NAV Integration.
- **NMEA 0183** Input
- Geographic position: NMEA-0183 GGA or GLL Format from GPS/DGPS
- Data Outputs:
 - NMEA DBT
 - NMEA DBS
- **Power Operation**: 11- 36V DC, 115/230V
- **Input Power**: 11-30 volts DC (1.5 amps @ 12V, 0.5 amp @30V.)
- Chart Record (Optional): High-Contrast Thermal Paper

Operation controls for off/standby/on, range selector, Sensitivity, chart speed, fix marks and range. Echogram to indicate transmission mark, zero mark & bed profile.

TRANSDUCER

- International branded 190 KHz-225 KHz transducer with minimum 30 feet cable length with plug to mate with recorder.
- Nominal Impedance: 50 ohms
 Beam width: 8-9 degrees @-3dB
 Housing Material: Brass/ SS
- Piezo Material: Barium Titanate or better
- Anodized Aluminum Pipe in four pieces to be joined by threads with fitting accessories (complete) for outboard vessel/Boat.

User manual. AC and DC power cables, Interfacing Cables with Computers & GPS, Spare fuses, Tool Kit.

SCHEDULE 'B': HEADING DGPS CUM BEACON RECEIVER FOR SURVEY AND NAVIGATION

Sl#	Specifications for HEADING DGPS CUM BEACON RECEIVER FOR SURVEY AN NAVIGATION				
	Parameters	Specification			
Conf	iguration				
1	Туре	Modular, dual antenna capable DGPS Rover for Heading			
2	Rover position update rate	up to 20Hz			
3	Constellations	GNSS (GPS and GLONASS standard). Galileo, BeiDou			
Gene	eral				
4	Display	OLED display			
5	Antenna	GA830, Triple Frequency GNSS (GPS, Glonass, Galileo, BeiDou), MSS (RTX, OmniSTAR), MSK Beacon			
6	Pole Drop	1 m pole drop onto a hard surface			
7	Shock & Vibration	MIL-STD 810F			
Meas	surements				
8	GNSS tracking channels	450 or more GPS GLONASS Galileo BeiDou			
9	SBAS Positioning				
a	Horizontal accuracy	± 0.50m			
b	Vertical accuracy	± 0.85 m			
10	RTK Positioning				
a	Horizontal accuracy	8 mm + 1 ppm RMS			
b	Vertical accuracy	15 mm + 1 ppm RMS			
11	Precise Heading				
a	Heading accuracy baseline	0.09° RMS			
b	Heading accuracy baseline	0.05 ° RMS			
c	Pitch or Role	Typically twice the baseline accuracy			
12	Post-processing accuracy				
a	Static	3 mm+0.5 ppm HRMS /5 mm+0.5 ppm VRMS			
b	High precision static	3 mm+0.1ppm HRMS/3.5 mm+0.4 ppm VRMS			
13	Power				
a	Internal	Removable internal battery 7.4V 3.7 Ah Li-Ion battery			
b	External	9-36 V DC external power input. Overvoltage protection			

14	Communications	Lemo, USB, Ethernet, WiFi, Bluetooth
a	Lemo (Serial 1) - Port A	RS232, external power input
b	Serial 2 - Port B	9 pin Male. RS232. Switchable to RS422
С	Serial 3 - Port F	9 pin Male. RS232, 1PPS, NMEA2000 (CAN)
d	USB	1 mini USB OTG
e	Ethernet	RJ45 connector. DHCP Server, Static IP, Server mode
f	Wi-Fi	802.11 b/g/n. SMA connector for WiFi/Bluetooth external antenna
g	Bluetooth wireless technology	Bluetooth v4.0+EDR/LE, Bluetooth v2.1+EDR SMA connector for WiFi/Bluetooth external antenna
1.5	N. I.D. (HTTP, NTP Server, TCP/IP or UDP, NTRIP, RTK
15	Network Protocols	Networks, Network link to Google Earth
16	Supported Data Formats	
a	Data Outputs	NMEA, 1PPS Time Tags, ATOM
17	Internal 2-Watt UHF Radio (450 MHz)	12.5 kHz or 25 kHz spacing available
18.a		Frequency range 283.5–325.0 kHz
b	Internal MSK Beacon receiver	Channel spacing 500 Hz
С		MSK bit rate 50, 100, and 200 bps
d		Demodulation minimum shift key (MSK)
19	Memory	
a	Internal memory	8 Gb
b	External	Expandable through external USB
20	Accessories	
a	Cables	All necessary power cable, adapter, data cables/interface cables required for interfacing should be supply
b	Antenna cables	30 Meter Antenna cable should be supply with each Antenna

SCHEDULE 'C': DGPS RECEIVER

- Type: Receiver with SBAS and Beacon
- Channels: 225 channels or more
 - 220-channel L1 C/A code (GPS, GLONASS, Galileo, Beidou, SBAS) Single frequency or better
 - 2-Channel MSK Beacon or better
 - 2-Channel SBAS (WAAS, EGNOS & GAGAN) or better
- Constellation tracking: GPS, GLONASS, Galileo, Beidou, SBAS and More
- ANTENNA OPTIONS: GNSS (GPS, Glonass, Galileo, Beidou), MSK Beacon, SBAS
- **Position update rate**: 10 Hz
- **Position format**: Geodetic (WGS84)
- Differential source: SBAS (WAAS, EGNOS & GAGAN) and DGNSS Beacon
- **Horizontal accuracy:** \pm 0.50m or better
- **Vertical accuracy**: ± 1.0 m or better
- 1PPS output: Yes
- **Keyboard and Display**: VFD display 16 characters by 2 rows, On/Off key for one-button start up **or better**
- Operating temperature: -40 °C to +65 °C (-40 °F to +149 °F)
- Storage temperature: -40 °C to +80 °C (-40 °F to +176 °F)
- Waterproof. Dustproof.
- SHOCK AND VIBRATION as per drop test internationally acceptable.
- **POWER**: 12-28V DC, Internal Lithium-ion battery (Optional)
- Compatible with Hypack software/ Teledyne PDS.
- Communication: Bluetooth, Wi FI, USB / Serial, Ethernet, RS 232 to connect to Laptop / PC for data communication
- **Data Output**: NMEA 0183
- Accessories: Antenna (s), necessary cable for antenna (15m), serial/Ethernet and PPS cables to interface with Echosounder and PC.

SCHEDULE 'D': Handheld GPS

- Mobile Mapper Hand held with smart phone.
- GNSS Receiver, Internal antenna: 72 channels, SBAS WAAS/EGNOS/MSAS/GAGAN/QZSS
- Tri constellation system: GPS/GAL or GPS/ GLO/GAL or GPS/Beidou/GAL
- External antenna connector
- ➤ Accuracy: <Less than 2 m typical with SBAS.

> COMMUNICATIONS: - Cellular, Wi fi, Bluetooth

- ➤ Memory: 4 GB SDRAM
- ➤ Storage: 64 GB and with Micro SD Card 128 GB.
- ➤ Power Characteristics: 8000mAH
- ➤ Battery Life: 15 hrs
- ➤ Removable battery

> MULTIMEDIA & SENSORS

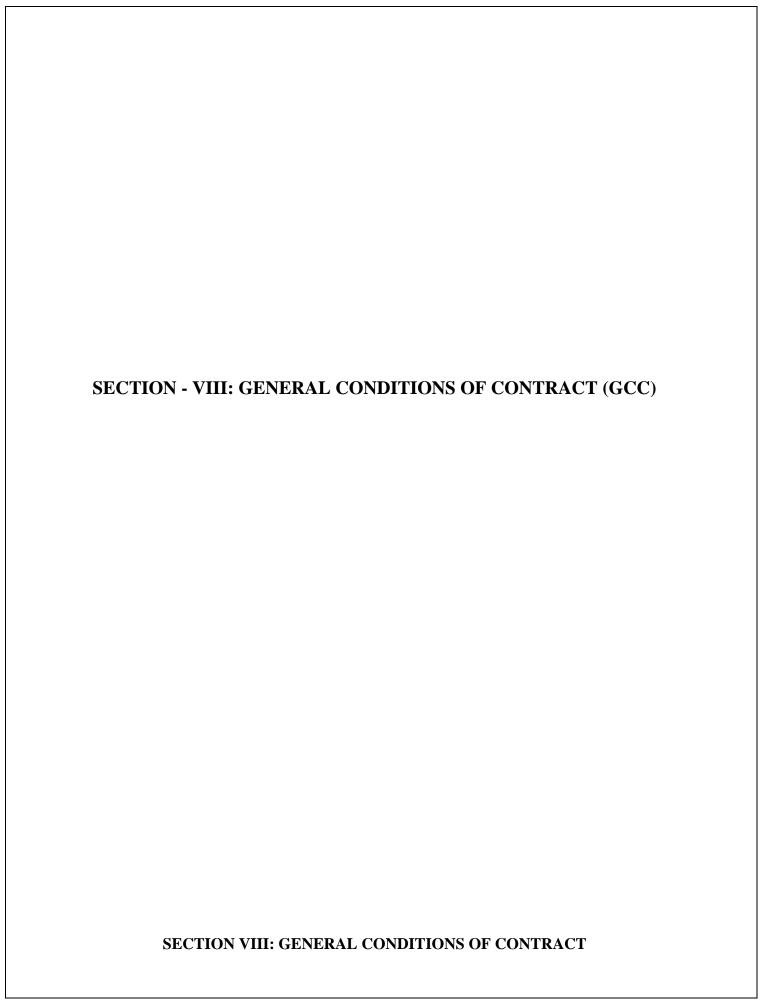
- Rear-camera-13-M-pixels-with-auto-focus-and-LED-flash
- Front-camera-5-M-pixels-with-fixed-focus
- Digital Compass
- Gyrometer
- Accelerometer
- Barometer
- Speaker
- Microphone
- Light sensor

> STANDARD ACCESSORIES

- Screen protector
- > A/C charger
- > USB cable

> OPTIONAL ACCESSORIES

- External magnetic GPS
- Pole bracket



GCC Claus	se Description	Page No
1	General Provisions	63
2	Employer	68
3	Engineer / Engineer-in-Chief	70
4	Contractor	72
5	Assignment & Sub-Contracting	85
6	Staff and Labor	88
7	Material, Plant and Workmanship	91
8	Commencement, Delays and Suspension	94
9	Tests on Completion	99
10	Employer's Taking Over	100
11	Defect Liability	101
12	Measurement & Omissions	103
13	Variations, adjustments and Additions	104
14	Special Risks	105
15	Certificates & Payments	107
16	Claims, provisional sum and settlement of disputes	113
17	When the Contract can be determined	117
18	Termination by the Employer	119
19	Termination by Contractor	124
20	Design & Drawings	125
21	Insurance	127
22	Release from Performance	131
23	Notices	131
24	Changes in Cost and Legislation	132

GCC Clause	Description	Page No
25	Sustainability of JV / Consortium	132

1 General Provisions

1.1 **Definitions**

- 1.1.1 "Employer" means the Chairperson, Inland Waterways Authority of India and his successors.
- 1.1.2 "Authority / Department / Owner" shall mean the Inland Waterways Authority of India, which invites bids on behalf of the Chairperson, IWAI and includes therein-legal representatives, successors and assigns.
- 1.1.3 "Chairperson" means Chairperson of Inland Waterways Authority of India.
- 1.1.4 "**Hydrographic Chief**" means the Hydrographic Chief of the Authority, as the case may be.
- 1.1.5 **"Director"** means the Director of the Authority, as the case may be.
- 1.1.6 **"Deputy Director"** means the Deputy Director of the Authority, as the case may be.
- 1.1.7 **"Contractor"** means the successful Bidder who has been awarded the contract to perform the work covered under this tender document and shall be deemed to include the Contractor's successors, executors, representatives or assigns approved by the Engineer.
- 1.1.8 **"Contractor's Representative"** means the person named by the Contractor in the Contract or appointed from time to time by the Contractor, who acts on behalf of the Contractor.
- 1.1.9 **"Employer's Personnel"** means the Engineer, the assistants and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer's Personnel.
- 1.1.10 "Contractor's Personnel" means the Contractor's Representative and all personnel whom the Contractor utilizes on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the works.
- 1.1.11 "Engineer-In-Charge (EIC) or Engineer" means the Hydrographic Chief authorized to direct, supervise and be in-charge of the works on behalf of the Employer.
- 1.1.12 "Subcontractor" means any person named in the Contract as a Subcontractor for a part of the Works or any person to a part of the Works has been subcontracted by the Contractor with the consent of the Engineer and the legal successors in title to such person, but not any assignee of any such person.
- 1.1.13 **"EIC representative"** shall mean any officer-in-charge of the Authority nominated by the EIC for day to day supervision, checking, taking measurement, checking & certifying bills, ensuring quality control, inspecting works and other related works for completion of the project.

- 1.1.14 "Engineer representative / assistant" shall mean any employee of the Authority nominated by the Engineer for day to day supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works and other related works for completion of the project.
- 1.1.15 "Specification" means the technical specifications and special conditions of the Works included in the Contract and any modification thereof or addition thereto made or submitted by the Contractor and approved by the Engineer.
- 1.1.16 **"Party"** means either the Employer or the Contractor as the case may be and "**Parties**" means both of them.
- 1.1.17 "Commencement Date" means the date notified under clause 8.1.
- 1.1.18 **"Time for Completion"** means the time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract (or as extended under Clause 8.6) calculated from the Commencement Date.
- 1.1.19 "Day" means a calendar day beginning and ending at mid-night.
- 1.1.20 "Week" means seven consecutive calendar days.
- 1.1.21 "Month" means one Calendar month.
- 1.1.22 "GCC" means the General Conditions of Contract.
- 1.1.23 "SCC" means the Special Conditions of Contract.
- 1.1.24 "Work / Works" means work / works to be executed in accordance with the contract.
- 1.1.25 **"Work Order"** means a letter from the Authority conveying the acceptance of the tender/offer subject to such reservations as may have been stated therein.
- 1.1.26 "Letter of Acceptance (LoA)" means the formal letter issued by the Employer to successful bidder to notify the acceptance of the offer of contractor and shall specify including other terms and conditions, total contract price in consideration of execution & completion of works and the remedying of any defect therein by the contractor in accordance with the terms and conditions of the contract.
- 11.1.27 "Bill of Quantities (BoQ)" means the price schedule and complete BoQ forming part of the Contract.
- 11.1.28 "**Tests on Completion**" means the tests specified in the Contract or otherwise agreed by the Engineer and the Contractor which are to be made by the Contractor before the Works or any Section or part thereof are taken over by the Employer.
- 11.1.29 "Taking-Over Certificate" means a certificate issued on total completion of work.
- 11.1.30 "Contract Price" means the price as specified in the LoA subject to additions and adjustments thereto or deductions therefrom as may be made pursuant to the offer.
- 11.1.31 "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.
- 11.1.32 "Accepted contract Amount" means the amount accepted in the LoA for the execution and completion of the Works including remedying of any defects.
- 11.1.33 "Final Payment Certificate" means the payment certificate issued under Sub-Clause 15.10.

- 11.1.34 "Goods" means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.
- 11.1.35 "Contractor's Equipment" means all apparatus, machinery, vehicles and other things required for the execution and completion of the works and the remedying of any defects However, Contractor's Equipment excludes Temporary Works, Employer's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.
- 11.1.36 "Site" means the places where the Permanent Works are to be executed and to which Plant and materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.
- 11.1.37 **"Permanent Works"** means the works as defined in the contract which are to be executed by the Contractor under the Contract.
- 11.1.38 "**Temporary Works**" means all temporary works of every kind (other than contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.
- 11.1.39 **"Applicable Law"** means the laws and any other instrument having the force of law in India for the time being.
- 11.1.40 "Approval" means consent by the Employer in writing

1.2 Interpretations

- **1.2.1** Where the contract so requires, words imparting the singular only shall also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- **1.2.2** Heading and marginal notes in these General Conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation of construction thereof of the contract.
- 1.2.3 Wherever in the Contract, provision is made for the giving or issuing of any notice, consent, approval, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in writing and the words "notify", "certify" or "determine" shall be construed accordingly. Any such consent, approval, certificate or determination shall not unreasonably be withheld or delayed.

1.3 Law and Language

The Contract shall be governed by the law of the country (Indian Law).

The language for communications shall be English.

1.4 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the Contract Agreement,
- **(b)** the Integrity Agreement
- (c) the LoA / Work Order

- (d) the Special Conditions of Contract
- (e) the General Conditions of Contract
- (f) the priced Bill of Quantities
- (g) the Drawings and Annexures.
- **(h)** the Technical Specifications
- (i) the Addendum / Corrigendum
- (j) the Minutes of the Meeting
- (k) the Technical Bid
- (l) the Post bid correspondences and any other document forming part of contract.

If any ambiguity or discrepancy is found in the documents, the Employer / EIC shall be the sole authority to issue any necessary clarification or instruction in this regard.

1.5 **Contract Agreement**

The Parties shall enter into a Contract Agreement within 15 days after the issuance of the LoA. The Contract Agreement shall be in the format annexed to the bid. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement & Integrity Agreement shall be borne by the Contractor.

1.6 Assignment / Sub-contracting

The Contractor shall not assign the whole or any part of the work to any other Party / Firm / Individual without prior written consent of the Employer. If at any stage of the currency of the contract, it is found that the work has been sublet by the contractor (exception to Clause 5.2 of GCC), IWAI shall forfeit the PBG and SD for the contract amount and shall black list the Contractor for further works with IWAI.

1.7 Employer's Use of Contractor's Documents

- (a) The Specifications and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, four copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor. Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Employer / EIC six copies of each of the Contractor's Documents.
- (b) The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times. If a Party becomes aware of an error or defect of a technical nature in a document, which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.
- (c) As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other project documents made by / or on behalf of the Contractor. The Contractor shall be deemed (by signing the Contract) to give

to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them for the same work or other works under Authority.

This Licence shall:

- **1.** Apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works;
- 2. Entitle any person in authorized possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works; and
- 3. In the case of Contractor's Documents, which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this Sub-Clause.

1.8 Contractor's use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.9 Disclosure of Confidential Details

The Contractor shall disclose all such confidential and other information as Employer may reasonably require in order to verify the Contractor's compliance with the Contract.

1.10 Compliance with Laws

The Contractor shall, in performing the Contract, comply with the applicable Laws.

Unless otherwise stated in the SCC:

- (a) the Employer shall have obtained (or shall obtain) the planning, zoning or similar permission for the Permanent works, and any other permissions described in the Specification as having been (or being) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals for his equipment and manpower as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer, harmless against and from the consequences of any failure to do so.

1.11 Contract Details to be Confidential

The Contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out obligations under it or to comply with applicable laws. The Contractor shall not publish, permit to be published or disclose any particulars of the works in any trade or technical paper of elsewhere without written approval of the Employer.

2 **Employer**

2.1 **Employer's responsibility**

The Employer shall ensure that the work carried out by the Contractor on the Site with:

- (a) have full regard to the safety of all persons entitled to be upon the Site, and
- (b) keep the Site in an orderly state appropriate to the avoidance of danger to such persons.

 If under Clause 4.29 and 4.30 the Employer shall employ other contractors on the Site, he shall require them to have the same regard for safety and avoidance of danger.

2.2 Employer's Risks

The Employer's risks are, in so far as they directly affect the execution of the Works in the country where the permanent works are to be executed:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (c) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
- (d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
- (e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the Works,
- (f) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract,
- (g) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible, and
- (h) any operation of the forces of nature (insofar as it occurs on the Site) that an experienced contractor:
 - could not have reasonably foreseen, or
 - could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - (i) prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - (j) insure against such loss or damage.

2.3 **Right of Access to the Site**

The Employer shall give the Contractor right of access to and possession of, all parts of the Site within the entire period of Contract including extensions, if any. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the SCC, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as may be required to enable the Contractor to proceed in accordance with the programme submitted. The same shall be handed over to the Employer.

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Employer / EIC and shall be entitled to:

- (a) an extension of time for any such delay, if completion is or will be delayed
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Employer / EIC shall proceed to agree or determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time Cost or profit.

2.4 Permits, Licenses or Approvals

The Employer shall (where he is in a position to do so) provide reasonable assistance to facilitate the Contractor at the request of the Contractor but without holding any liability to do so towards the Contractor:

- (a) by obtaining copies of the Laws of the Country which are relevant to the Contract but are not readily available;
- (b) for the Contractor's applications for any permits, Licences or approvals required by the Laws of the Country:
 - (i) which the Contractor is required to obtain under sub-clause 1.10
 - (ii) for the delivery of Goods, including clearance through customs; and
 - (iii) for the export of Contractors Equipment when it is removed from the Site.

All cost related to obtaining of such permits, licenses and approvals shall be borne by the Contractor.

2.5 **Employer's Claims**

If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, the Employer shall give notice and particulars to the Contractor. However, notice is not required for payments due. The notice shall be given as soon as practicable after the Employer became aware of the event or circumstances giving rise to the claim.

The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with the amount (if any) which the Employer is entitled to be paid by the Contractor. This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this sub-clause.

3 Engineer / Engineer-in-Charge (EIC)

3.1 Engineer's Duties and Authority

The Employer shall designate / appoint the Engineer who shall carry out duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out his duties. The Engineer shall have no authority to amend the Contract. The Engineer shall have the following roles and responsibilities.

- **3.1.1** The Engineer shall carry out the duties specified in the Contract.
- **3.1.2** The Engineer may exercise the authority specified in or necessarily to be implied from the Contract. However, he should obtain the specific approval of the Employer before exercising any such authority; particulars of such requirements are as follows:
 - a) consenting to the sub-contracting of any part of the Works under Clause 5;
 - b) certifying additional cost determined under Clause 4.7;
 - c) determining an extension of time under sub clause 8.6, 8.7 and 8.8 of Clause 8;
 - d) issuing a variation under sub clause 13.1 and 13.2 of clause 13, except:
 - (i) in an emergency situation, as reasonably determined by the Engineer or
 - (ii) if such variation would increase or decrease the quantity of works & allied items by less than the percentage permitted as per SCC or;
- **3.1.2.5** Fixing rates or prices under sub clause 13.3, 13.4 and 13.5 of clause 13.

Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.

3.1.2.6 Except as expressly stated in the Contract, the Engineer shall have no authority to relieve the Contractor of any of his obligations under the Contract.

3.2 Engineer's Representative

The Engineer's Representative shall be appointed by and be responsible to the Engineer and shall carry out such duties and exercise such authority as may be delegated to him by the Engineer under Sub-Clause 3.3.

3.3 Engineer's Authority to Delegate

Any communication given by the Engineer's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Engineer. However,

- (a) any failure of the Engineer's Representative to disapprove any work, materials or Plant shall not constitute approval and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials: and
- (b) if the Contractor questions any determination or instruction of the Engineer's Representative, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.
- Appointment of Assistants: The Engineer or the Engineer's Representative may appoint any number of persons to assist the Engineer's Representative in carrying out of his duties under Sub-Clause 3.2. He shall notify to the Contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the Contractor so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, Plant or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been given by the Engineer's Representative.

3.5 Instructions in Writing

Instructions given by the Engineer shall be in writing, provided that if for any reason the Engineer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Engineer, whether before or after the carrying out of the instruction, shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 7 days, confirms in writing to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in writing within 7 days by the Engineer, it shall be deemed to be an instruction of the Engineer.

3.6 Engineer to Act Impartially

Wherever, under the Contract, the Engineer is required to exercise his discretion by:

- (a) Giving his decision, opinion or consent,
- **(b)** Expressing his satisfaction or approval,
- (c) Determining value, or
- (d) Otherwise taking action which may affect the rights and obligations of the Employer or the Contractor

He shall exercise such discretion impartially within the terms of the Contract and having regard to all the circumstances. Any such decision, opinion, consent, expression of satisfaction, or approval, determination of value or action may be opened up, reviewed or revised as provided in Clause 16.3.1.

3.7 Engineer at liberty to object

The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person provided by the Contractor who, in the opinion of the Engineer, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose presence on Site is otherwise considered by the Engineer to be undesirable, and such person shall not be again allowed upon the Works without the prior written consent of the Engineer. Any person so removed from the Works shall be replaced as soon as possible.

4 Contractor

4.1 Contractor's General Responsibilities

The Contractor shall, with due care and diligence, design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions and shall remedy any defects in the Works.

The Contractor shall provide all superintendence, labour, materials, Plant, Contractor's Equipment and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

The Contractor shall give prompt notice to the Engineer, with a copy to the Employer, of any error, omission, fault or other defect in the design of or Specification for the Works which he discovers when reviewing the Contract or executing the Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the SCC:

- (a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
- (b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.3, and shall include additional information required by the Engineer to add to the Drawings for coordination of each Party's designs Contract;
- (c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and
- (d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10 until these documents and manuals have been submitted to the Engineer.

4.1.1 **CHANGES IN A FIRM**

(i) Where the contractor is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the Chairperson on behalf of Authority which may be granted only upon acceptation of a written undertaking by the new partner to perform

the contract of accept all liabilities incurred by the Firm under the contract prior to the date of such undertaking.

- (ii) On the death or retirement of any partner of the contractor firm before complete performance of the contract the Chairperson on behalf of Authority may, at his opinion cancel the contract and in such case the contractor shall have no claim whatsoever to compensation against the owner.
- (iii) If the contract is not determined as provided in sub-clause (ii) above notwithstanding the retirement of a partner from the firm, he shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under section 32 of the Partnership Act has been sent by him to the owner by registered post acknowledgement due.

4.1.2 **CONSEQUENCE OF BREACH:**

Should the contractor or a partner in the contractor firm commit breach of either of the conditions (iii) or (ii) (a) (I) of this sub clause it shall be lawful for the owner to cancel the contract and purchase or authorize the purchase of the equipment at the risk and cost of the contractor and in that event the provisions of clause 48& 56 of GENERAL CONDITIONS shall as far as applicable apply. The decision of the Chairperson on behalf of Authority as to any matter or thing concerning or arising out of this sub-clause or any question whether the contractor or any partner of the contract firm has committed a breach of any of the conditions in this sub-clause contained shall be final and binding on the contract.

4.1.3 ASSISTANCE TO THE CONTRACTOR

- a) The contractor shall be solely responsible to procure any material or obtain any import or other license or permit required for fulfilment of the contract and the grant by "the owner or any other authority of a quota certificate or permit required under any law for distribution or acquisition of iron and steel or any other commodity or any other form of iron and steel, or any other commodity or any other form of assistance in the procurement of the material aforesaid, shall not be construed as a representation in the part of the purchase that the material covered by such license or permit quota certificate is available or constitute any premise, undertaking or assurance on the part of the owner regarding the procurement of the same or effect any variation in the rights and liabilities of the parties under the contract. But, if by reason of any such assistance as aforesaid, the contractor obtains any materials at less than their market price or the cost of production of the equipment is lowered, the price of the equipment payable under the contract shall be reduced proportionately and the extent of such reduction shall be determined by the owner whose decision shall be final and binding on the contractor.
- b) Every agreement made by Chairperson on behalf of the Authority to supply or give assistance in the procurement of materials, whether from the Govt. Stock or by purchase under permit or release order issued by or by any officer empowered in that behalf of Govt. shall be deemed to be subject to the condition that it will be performed with due regard to other demands and only if it is found practicable to do so within the stipulated time and the decision of the Chairperson on behalf of Authority whether it was practicable to supply or give assistance as aforesaid or not shall be final and binding on the contractor.

4.2 Site Operations and Methods of Construction

The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations and methods of construction. Provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of Permanent Works, or for the design or specification of any Temporary Works not prepared by the Contractor. Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall be fully responsible for that part of such Works, notwithstanding any approval by the Engineer.

4.3 Contract Agreement

- 4.3.1 The Parties shall enter into a Contract Agreement within 15 days after the issue of the LoA. The Contract Agreement shall be in the format annexed to the bid. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement and Integrity Agreement shall be borne by the successful Bidder.
- **4.3.2** The Contractor shall be furnished free of charge certified true copy of the Contract document.
- **4.3.3** A copy of the Contract Document furnished to the Contractor as aforesaid shall be kept by the Contractor at the Site in good condition and the same shall at all reasonable time be available for inspection and use by the EIC, his representatives or by other Inspecting officers of the Authority.
- **4.3.4** None of these Documents shall be used by the Contractor for any purpose other than that of this contract.

4.3.5 AUTHORITY OF PERSONS SIGNING THE CONTRACT ON BEHALF OF THE CONTRACTOR:

A person signing the tender or any other document in respect of the contract on behalf of the contractor without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the contractor. If it is discovered at any time that the person so signing had no authority to do so, the Chairperson on behalf of Authority may, without prejudice to any other right or remedy of the owner, cancel the contract and make or authorize the making of a purchase of the equipment at the risk and cost of such person and hold such person liable to the owner for all costs and damages arising from the cancellation of the contract including any loss which the owner may sustain on account of such purchase. The provisions of clause 11 apply to every such purchase as far as applicable.

4.4 Performance Security and Security Deposit

4.4.1 For All Bidders including MSE Registered Firms

- 4.4.1.1 The Contractor shall be required to deposit an amount equal to 3% of the contract value of the work as Performance Security in the form of an irrevocable bank guarantee bond of any Nationalized / Scheduled bank of India in accordance with the format prescribed within 15 days of the issuance of the LoA.
- 4.4.1.2 Without limitation to the provisions of the preceding paragraph, whenever the EIC determines an addition to the Contract Price as a result of a change in cost and/or legislation or as a result of a variation amounting to more than 20% of the portion of the Contract Price, the Contractor, at the EIC's written request, shall promptly increase the value of the Performance Bank Guarantee proportionately. The Contractor will also be required to furnish additional Performance Bank

Guarantee, if any, arising out of provisions of clause 16.2.6 under the ITB. The cost of complying with the requirements of this clause shall be borne by the Contractor.

4.4.1.3 For Tenders having financial quote up to ± 10% of the estimated contract value, no additional performance security is required but for tenders having financial quote within ± 10% and ± 20% of the estimated contract value, the Contractor is liable to provide additional Bank Guarantee against unbalanced rate which would be communicated in LoA. The additional Bank Guarantee defined herein shall be over and above the performance security and shall be returned after issuance of completion certificate by the EIC. The additional performance bank guarantee shall be valid one month beyond the completion of work. However, non-furnishing of additional BG within the stipulated time of LoA shall be treated as default and consequently, the tender shall be cancelled with forfeiture of EMD.

For tenders having financial quote beyond \pm 20% of the estimated contract value, the successful Bidder shall furnish full justification for the quote to satisfy that rates quoted are workable, however decision of the Employer in this regard shall be final and binding upon the successful Bidder with conditions imposed if any (Other than additional BG) and offer for consent would be given to the successful Bidder.

4.4.1.4 The Performance Bank Guarantee shall be valid till 90 days beyond the validity of guarantee period or until the Contractor has executed and completed the Works and remedied any defects (Defects Liability Period) therein in accordance with the Contract. No claim shall be made against such bank guarantee and such bank guarantee shall be returned to the Contractor within 21 days of the completion of the Defects Liability Period by the EIC. In case of extension of time for completion, the Contractor shall get the validity of the Performance Bank Guarantee extended to cover such extension of time of the work.

4.4.2 **Security Deposit**

4.4.2.1 Security Deposit including EMD already submitted will be 5% (five percent) of the contract value of the work. The EMD received from successful Bidder will be converted as Security Deposit on signing of the agreement.

Balance Security Deposit (i.e. Total 5% SD deducting EMD submitted with technical bid) shall be paid in the form of Demand Draft before signing of Agreement.

In case of MSE registered firms, 5% of the contract value of the work as Security Deposit shall be paid in the form of Demand Draft before signing of Agreement.

Bank guarantee will not be accepted as security deposit.

- **4.4.2.2** The total security deposit shall remain with the Employer till the defect liability period or final handing over of the work or the payment of the final bill payable in accordance with agreement condition whichever is later, provided the EIC is satisfied that there is no demand outstanding against the Contractor.
- **4.4.2.3** No interest will be paid on Security Deposit.
- **4.4.2.4** If the Contractor neglects to observe or fails to perform any of his obligations under the contract, it shall be lawful for the Employer to forfeit either in whole or in part, the Security Deposit furnished by the Contractor. However, if the Contractor duly performs and completes the contract in all respects and presents in absolute "NO DEMAND CERTIFICATE" in the prescribed form,

the EIC shall refund the Security Deposit to the Contractor after deduction of cost and expenses that the Employer may have incurred and other money including all losses and damages which the Employer is entitled to recover from the Contractor.

- **4.4.2.5** In case of delay in the progress of work, the Employer shall issue to the Contractor a notice in writing pointing out the delay in progress and calling upon the Contractor to explain the causes for the delay within 3 days of receipt of the notice or 10 days from issuance of notice whichever is earlier. If the Engineer-in-Charge is not satisfied with the explanations offered, he may forfeit the security deposit and / or withhold payment of pending bills in whole or in part and/ or get the measures of rectification of progress of work accelerated to the pre-defined level at the risk and cost of the contractor.
- 4.4.2.6 All compensation or other sums of money payable by the Contractor under the terms of the contract or any other contract or on any other account whatsoever, may be deducted from or paid by the sale of a sufficient part of his security or from any sums which may be due or may become due to the Contractor by the Employer on any account whatsoever. Also in the event of the Contractor's Security Deposit falls short of such deductions or sale, as aforesaid the Contractor shall, within 14 days of receipt of notice of demand from the Employers representative make good the deficit in his Security Deposit.
- 4.4.2.7 In case the contractor fails to commence the work or when the contractor has defaulted for more than thirty days or when any amount is to be recovered from the contractor as penalty or deduction and the contractor fails to remit such amount even after due notice is given to him in this regard, IWAI at its own discretion may encash the Bank Guarantee furnished as Performance Guarantee and /or recover the sum from his Security Deposit.

4.5 Inspection of Site

The Employer shall have made available to the Contractor, prior to commencement of the work, such available data, as have been obtained by or on behalf of the Employer from investigations undertaken relevant to the Works but the Contractor shall be responsible for his own interpretation thereof.

The Contractor acknowledges that it has inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of cost and time) before submitting his Tender, as to:

- (a) The form and nature thereof, including the sub-surface conditions;
- (b) The hydrological, hydrographical and climatic conditions;
- (c) The extent and nature of work and materials necessary for the execution and completion of the works and the remedying of any defects therein;
- (d) The means of access to the site and the accommodation he may require;
- (e) Power, water, fuel and other supplies he may require;
- (f) The infrastructure for transportation of men and material along the project corridor;
- (g) Market rates of the items in the working country;
- (h) Medical facilities;

- (i) General safety & security of project area; and
- (j) The Laws, procedures and labour practices of the Country

and, in general, shall be deemed to have obtained all necessary information, subject as mentioned above, as to risks, contingencies and all other circumstances which may influence or affect his tender. The Contractor shall be deemed to have based his tender on the data available by the Employer and on his own inspection and examinations, all as aforementioned.

4.6 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except insofar as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, Plant or services or of contingencies) and all matters and things necessary for the proper execution and completion of the Works and the remedying of any defects therein.

4.7 Unforeseeable Physical Obstructions or Conditions

If, however, during the execution of the Works, the Contractor encounters physical obstructions or physical conditions, other than climatic, river conditions on the Site, such obstructions or conditions were, in his opinion, not foreseeable by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer, with a copy to the Employer. On receipt of such notice, the Engineer shall, if in his opinion such obstructions or conditions could not have been reasonably foreseen by an experienced contractor, after due consultation with the Employer and the Contractor, determine:

- (a) Any extension of time to which the Contractor is entitled under sub clause 8.6, 8.7 and 8.8 of clause 8, and
- (b) No cost on any account due to unforeseeable physical obstructions or conditions shall be added to the Contract Price.
- (c) The amount of any costs which may have been incurred by the Contractor by reason of such obstructions or conditions having been encountered, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer. Such determination shall take account of any instruction which the Engineer may issue to the Contractor in connection therewith, and any proper and reasonable measures acceptable to the Engineer which the Contractor may take in the absence of specific instructions from the Engineer.

4.8 Work to be in Accordance with Contract.

Unless it is legally or physically impossible, the Contractor shall execute and complete the Works and remedy any defects therein in strict accordance with the Contract to the satisfaction of the Engineer. The Contractor shall comply with and adhere strictly to the Engineer's instructions on any matter, whether mentioned in the Contract or not, touching or concerning the Works. The Contractor shall take instructions only from the Engineer (or his Representatives or Assistants).

4.9 Contractor's Programme

(a) The Contractor shall, within fifteen days, after the date of issue of the LoA, submit to the EIC for his consent, a programme, in such form and detail as the EIC shall reasonably prescribe, for the execution of the Works. The Contractor shall, whenever required by the EIC, also provide in writing for his information a general description of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works.

(b) Revised Programme

If at any time it should appear to the EIC that the actual progress of the Works does not conform to the programme to which consent has been given under Sub-Clause 4.9 (a), the Contractor shall produce, at the request of the EIC, a revised programme showing the modifications to such programme necessary to ensure completion of the Works within the Time for Completion.

(c) Cash Flow Estimate to be submitted

The Contractor shall, within the time stated in the SCC, after the signing of Agreement, provide to the EIC for his information a detailed 3 months rolling cash flow, of all payments to which the Contractor will be entitled under the Contract and the Contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the EIC.

(d) Contractor not relieved of Duties or Responsibilities

The submission to and consent by the EIC of such programmes or the provision of such general descriptions or cash flow estimates shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

4.10 Contractor's Superintendence

The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorised representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the Works. Such authorised representative shall receive, on behalf of the Contractor, instructions from the Engineer.

If approval of the representative is withdrawn by the Engineer, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the Works and shall not thereafter employ him again on the Works in any capacity and shall replace him by another representative approved by the Engineer.

4.11 Contractor's Employees

The Contractor shall provide on the Site in connection with the execution and completion of the Works and the remedying of any defects therein

(a) only such technical personnel as are skilled and experienced in their respective callings and such foremen and leading hands as are competent to give proper superintendence of the Works, and

(b) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely fulfilling of the Contractor's obligations under the Contract.

4.12 Setting out

The Contractor shall be responsible for:

- (a) the accurate setting-out of the Works in relation to original points, lines and levels of reference given by the EIC in writing,
- (b) the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Works, and
- (c) the provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.

If, at any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer.

The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works.

4.13 Safety and Security

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons; and
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the EIC or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others.

4.14 Electricity, Water and Gas

The Contractor shall be responsible for the provision of all power, water and other services he may require for his execution of the Works.

4.15 Protection of the Environment

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the permissible / acceptable values, and shall not exceed the values prescribed by applicable Laws. The Contractor is required to establish and operate with suitably qualified personnel a system for monitoring the environmental factors that may be directly impacted by the Works and make available such records for inspection of EIC or duly authorized

representatives of government of the country in which Works are executed as and when so required.

4.16 Care of Works

The Contractor shall take full responsibility for the care of the Works, Materials and Plant for incorporation therein from the Commencement Date until the date of issue of the Taking-Over Certificate for the whole of the Works, when the responsibility for the said care shall pass to the Employer. Provided that:

- (a) if the EIC issues a Taking-Over Certificate for any Section or part of the Permanent Works, the Contractor shall cease to be liable for the care of that Section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer; and
- (b) the Contractor shall take full responsibility for the care of any outstanding Works and materials and Plant for incorporation therein which he undertakes to finish during the Defects Liability Period until such outstanding Works have been completed pursuant to Clause 11.

4.17 Responsibility to Rectify Loss or Damage

If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in Sub-Clause 2.2, the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 11.

4.18 Loss or Damage Due to Employer's Risks

In the event of any such loss or damage happening from any of the risks defined in Sub-Clause 2.2, or in combination with other risks, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the Contract Price in accordance with Clause 13.3, 13.4 and 13.5 and shall notify the Contractor accordingly, with a copy to the Employer. In the case of a combination of risks causing loss or damage any such determination shall take into account the proportional responsibility of the Contractor and the Employer.

4.19 Compliance with Statutes, Regulations

The Contractor shall conform in all respects, including by giving of all notices and the paying of all fees, with the provisions of:

- (a) any National or State Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the Works and the remedying of any defects therein, and
- (b) the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works, and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any

such provisions. Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the Works to proceed and shall indemnify the Contractor in accordance with Sub-Clause 21.7.

4.20 Fossils

The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging all fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site. The Contractor immediately upon discovery thereof and before removal, acquaint the Engineer of such discovery and carry out the Engineer's instructions for dealing with the same. If, by reason of such instructions, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under sub clause 8.6, 8.7 and 8.8 of clause 8; and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

4.21 Patent Rights

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of any Contractor's Equipment, materials or Plant used for or in connection with or for incorporation in the Works and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from compliance with the design or Specification provided by the Engineer.

4.22 Copy Right

The copyright in all drawings, documents and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party indemnity of the Employer.

4.23 Royalties

Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the Works as per governing laws.

4.24 Interference with Traffic and Adjoining Properties

All operations necessary for the execution and completion of the Works and the remedying of any defects therein shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to, use and occupation of public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person.

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of, or in relation to, any such matters insofar as the Contractor is responsible therefor.

4.25 Avoidance of Damage to Roads, Temporary Structure / Permanent structure

The Contractor shall use every reasonable means to prevent any of the roads or bridge jetties, wharfs or river channels, temporary berths for inland vessels, communicating with or on the routes to the Site from being damaged or injured by any traffic of the Contractor or any of his Subcontractors and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of materials, Plant, Contractor's Equipment or Temporary Works from and to the Site shall be limited, as far as reasonably possible, and so that no unnecessary damage or injury may be occasioned to such roads and bridges or other structures. However, if any claim arises regarding damage, maintenance / repairs / reconstruction / replacement would be contractor's liability.

4.26 Transport of Contractor's Equipment or Temporary Works

Save insofar as the Contract otherwise provides, the Contractor shall be responsible for and shall pay the cost of strengthening any bridges, jetties, wharfs or altering or improving any road or river channels, temporary berths for inland vessels, communicating with or on the routes to the Site to facilitate the movement of Contractor's Equipment or Temporary Works and the Contractor shall indemnify and keep indemnified the Employer against all claims for damage to any such road or bridge or other structures caused by such movement, including such claims as may be made directly against the Employer, and shall negotiate and pay all claims arising solely out of such damage, the costs of which are deemed to be included in the contract price. The Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works.

4.27 Transport of Materials or Plant

If, notwithstanding Sub-Clause 4.25, any damage occurs to any bridge or road or structure jetties, wharfs or river channels, temporary berths for communicating with or on the routes to the Site arising from the transport of materials or Plant, the Contractor shall notify the Engineer with a copy to the Employer, as soon as he becomes aware of such damage or as soon as he receives any claim from the authority entitled to make such claim. In such cases the Contractor shall negotiate the settlement of and pay all sums due in respect of such claim and shall indemnify the Employer in respect thereof and in respect of all claims, proceedings, damages, costs, charges and expenses in relation thereto. Provided that if and so far as any such claim or part thereof is, in the opinion of the Engineer, due to any failure on the part of the Contractor to observe and perform his obligations under Sub-Clause 4.25, and the Contractor fails to take adequate steps to settle any claims arising, the Engineer will be at liberty to negotiate with such claimant and pay for damages which shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. The Contractor shall give the Employer not less than 21 days' notice of the date on which any Equipment, Plant or a major item of other Goods will be delivered to the Site.

4.28 Waterborne Traffic

Where the nature of the Works is such as to require the use by the Contractor of waterborne transport, the foregoing provisions of this Clause shall be construed as though "road" included a lock, dock, sea wall or other structure related to a waterway and "vehicle" included craft, and shall have effect accordingly.

4.29 Opportunities for Other Contractors

The Contractor shall, in accordance with the requirements of the EIC, afford all reasonable opportunities for carrying out their work to:

- (a) any other contractors employed by the Employer and their workmen
- **(b)** the workmen of the Employer, and
- (c) the workmen of any duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contract or of any contract which the Employer may enter into in connection with or ancillary to the Works.

4.30 Facilities for other Contractors

If, however, pursuant to Sub-Clause 4.29 the Contractor shall, on the written request of the Engineer:

- make available to any such other Contractor, or to the Employer or any such authority, any roads or ways for the maintenance of which the Contractor is responsible,
- (b) permit the use, by any such, of Temporary Works or Contractor's Equipment on the Site, or
- (c) provide any other service of whatsoever nature for any such work, the Engineer shall determine an addition to the Contract Price in accordance with Clauses 13.3, 13.4 and 13.5 and shall notify the Contractor accordingly, with a copy to the Employer.

4.31 Contractor to Keep Site Clear

During the execution of the Works the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose off any Contractor's Equipment and surplus materials and clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

4.32 Clearance of Site on Completion

Prior to the issue of any Taking-Over Certificate, the Contractor shall clear away and remove from that part of the Site to which such Taking-Over Certificate relates all Contractor's Equipment, surplus material, rubbish and Temporary Works of every kind, and leave such part of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer. Provided that the Contractor shall be entitled to retain on Site, until the end of the Defects Liability Period, such materials, Contractor's Equipment and Temporary Works as are required by him for the purpose of fulfilling his obligations during the Defects Liability Period.

4.33 Language Ability of Superintending Staff

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the local language of the Site and English language, or the Contractor shall have available on

site at all times a sufficient number of competent interpreters to ensure the proper transmission of instructions and information.

4.34 Employment of Local Personnel

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience from sources within the country of the Employer and the country/place where the Work is executed.

4.35 Boreholes and Exploratory Excavation

In respect of Works which the Contractor is required to design, execute and construct to the requirements of Employer, any boreholes or exploratory excavation that may be required to be undertaken before commencement or during execution of Works will have to be carried out by the Contractor at no extra cost.

4.36 Contractor's Equipment, Temporary Works and Materials

4.36.1 Contractor's Equipment, Temporary Works and Materials; Exclusive Use for the Works

All Contractor's Equipment, Temporary Works and materials provided by the Contractor shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Works and the Contractor shall not remove the same or any part thereof, except for the purpose of moving it from one part of the Site to another, without the consent of the Engineer. Provided that consent shall not be required for vehicles, floating crafts engaged in transportation of staff, labour, Contractor's Equipment, Temporary Works, Plant or materials to or from the Site.

4.36.2 Employer not Liable for Damage

The Employer shall not at any time be liable, as mentioned in Clauses 2.2, 4.16, 4.17, 4.18 and 14, for the loss of or damage to any of the said Contractor's Equipment, Temporary Works or materials.

4.36.3 Customs Clearance

The Employer will use his best endeavours in assisting the Contractor, where required, in obtaining clearance through the Customs of Contractor's Equipment, materials and other things required for the Works.

4.36.4 Re-export of Contractor's Equipment

In respect of any Contractor's Equipment which the Contractor has imported for the purposes of the Works, the Employer will use his best endeavours to assist the Contractor, where required, in procuring any necessary Government consent to the re-export of such Contractor's Equipment by the Contractor upon the removal thereof pursuant to the terms of the Contract and in accordance with the provisions contained in the Framework Agreement.

4.36.5 Conditions of Hire of Contractor's Equipment

With a view to securing, in the event of termination under clause 18, the continued availability, for the purpose of executing the Works, of any hired Contractor's Equipment, the Contractor shall not remove or withdraw any of such equipment, materials, temporary works or plant from the site without obtaining written permission to do so issued by the EIC. Employer shall be entitled to permit the use thereof by any other Contractor employed by him for the purpose of

executing and completing the Works and remedying any defects therein, under the terms of the said Clause 18.

4.36.6 Costs for the Purpose of Clause 18

In the event of the Employer invoking provisions of sub clause 4.36.5, for the purpose of executing and completing the Works and the remedying of any defects therein for the purpose of clause 18, the costs thereof will be determined by the EIC in consultation with the Employer and same shall form the cost of executing and completing same as incomplete obligation and liability of the Contractor and notice to that effect will be issued to the Contractor by the Engineer.

4.36.7 Incorporation of Clause in Subcontracts

The Contractor shall, where entering into any subcontract for the execution of any part of the Works, incorporate in such subcontract (by reference or otherwise) the provisions of sub clauses 4.36.5 and 4.36.6 in relation to Contractor's Equipment, Temporary Works or materials brought on to the Site by the Subcontractor and Employer shall be kept indemnified against any claim arising out of such sub-contractor.

4.37 Co-operation

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- (a) the Employer's Personnel;
- (b) any other contractors employed by the Employer; and
- (c) the personnel of any legally constituted public authorities

who may be employed in the execution on or near the Site of any work not included in the Contract. Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements, which are the responsibility of the Contractor.

If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Employer / Engineer in the time and manner stated in the Specification.

5 Assignment and Subcontracting

5.1 Assignment of Contract

The Contractor shall not assign the whole or any part of the work to any other Party/Firm/Individual. If at any stage of the currency of the contract, it is found that the work has been sublet by the contractor (exception to Clause 5.2 of GCC), IWAI shall forfeit the PBG and SD for the contract amount and shall black list the Contractor for further works with IWAI.

5.2 Subcontracting

The Contractor shall not subcontract the whole of the Works except where otherwise provided by the Contract. The Contractor shall not subcontract any part of the Works without the prior consent of the Employer conveyed through the EIC. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. The work sub-contracted shall not be more than 15% of the contract value. If the EIC gives his consent to the Contractor to subcontract part of the work and the value of such work is more than 10% of the contract amount, the sub-contractor shall have to submit all relevant documents, as stipulated in ITB of this tender document which in turn shall be evaluated to check the capacity / capability of the proposed sub-contractor to execute the work assigned to him. Failing to do so, the EIC may, at his discretion, reject Contractor's claim to subcontract the work to such sub-contractor.

Provided that the Contractor shall not be held liable except in the following case required to obtain such consent for:

- (a) The provision of labour;
- **(b)** The purchase of materials which are in accordance with the standards specified in the Contract; or
- (c) The subcontracting of any part of the Works for which the Subcontractor is named in the original Contract.

In all other cases, the Contractor shall give the Employer not less than 14 days' notice of;

- (a) The intended appointment of the Subcontractor, with detailed particulars which shall include his relevant experience,
- **(b)** The intended commencement of the Subcontractor's work, and
- (c) The intended commencement of the Subcontractor's work on the site

5.3 Assignment of Subcontractors' Obligations

In the event of a Subcontractor having undertaken towards the Contractor in respect of the work executed, or the goods, materials, Plant or services supplied by such Subcontractor, any continuing obligation extending for a period exceeding that of the Defects Liability Period under the Contract, the Contractor shall at any time, after the expiration of such Period, assign to the Employer, at the Employer's request and cost, the benefit of such obligation for the unexpired duration thereof.

5.4 Nominated Subcontractors

5.4.1 Definition of "Nominated Subcontractors"

All specialists, merchants, tradesmen and others executing any work or supplying any goods, materials, Plant or services included in the Contract, who may have been or be nominated or selected or approved by the Employer or the Engineer, for the execution of such work or the supply of such goods, materials, Plant or services, be deemed to be subcontractors to the Contractor and are referred to in this Contract as "nominated Subcontractors".

5.4.2 Nominated Subcontractors; Objection to Nomination

The Contractor shall not be required by the Employer or the Engineer, or be deemed to be under any obligation, to employ any nominated Subcontractor against whom the Contractor may raise reasonable objection or who declines to enter into a subcontract with the Contractor containing provisions:

- that in respect of the work, goods, materials, Plant or services the subject of the subcontract, the nominated Subcontractor will undertake towards the Contractor such obligations and liabilities as will enable the Contractor to discharge his own obligations and liabilities towards the Employer under the terms of the Contract and will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities; and
- (b) that the nominated Subcontractor will keep harmless and indemnify the Contractor from and against any negligence by the nominated Subcontractor, his agents, workmen and servants and from and against any misuse by him or them of any Temporary Works provided by the Contractor for the purposes of the Contract and from all claims as aforesaid.

5.4.3 Design Requirements to be Expressly Stated

If in connection with any services to be provided in relation to execution of Works include any matter of design or specification of any part of the Permanent Works or of any Plant to be incorporated therein, such requirement shall be expressly stated in the Contract and shall be included in any nominated Subcontract. The nominated Subcontract shall specify that the nominated Subcontractor providing such services will keep harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities.

5.4.4 Payments to Nominated Subcontractors

For all work executed or goods, materials, Plant or services supplied by any nominated Subcontractor, the Contractor shall be entitled to:

- (a) the actual price paid or due to be paid by the Contractor, on the instructions of the EIC, and in accordance with the subcontract;
- (b) in respect of labour supplied by the Contractor, the sum, if any, entered in the Bill of Quantities or, if instructed by the Engineer pursuant to paragraph (a) of Sub-Clause 16.2.2, as may be determined in accordance with Clause 13.3,13.4 and 13.5; and
- (c) in respect of all other charges and profit, a sum being a percentage rate of the actual price paid or due to be paid calculated, where provision has been made in the Bill of Quantities for a rate to be set against the relevant Provisional Sum, at the rate inserted by the Contractor against that item or, where no such provision has been made, at the rate inserted by the Contractor in the SCC and repeated where provision for such is made in a special item provided in the Bill of Quantities for such purpose.

5.4.5 Certification of Payments to Nominated Subcontractors

Before issuing, under Clause 15, any certificate, which includes any payment in respect of work done or goods, materials, Plant or services supplied by any nominated Subcontractor, the

Engineer shall be entitled to demand from the Contractor reasonable proof that all payments, less retentions, included in previous certificates in respect of the work or goods, materials, Plant or services of such nominated Subcontractor have been paid or discharged by the Contractor. If the Contractor fails to supply such proof then, unless the Contractor:

- (a) satisfies the Engineer/EIC in writing that he has reasonable cause for withholding or refusing to make such payments, and
- (b) produces to the Engineer/EIC reasonable proof that he has so informed such nominated Subcontractor in writing,

the Employer shall be entitled to pay to such nominated Subcontractor direct, upon the certificate of the EIC, all payments, less retentions, provided for in the nominated Subcontract, which the Contractor has failed to make to such nominated Subcontractor and to deduct by way of set-off the amount so paid by the Employer from any sums due or to become due from the Employer to the Contractor.

Provided that, where the EIC has certified and the Employer has paid direct as aforesaid, the EIC shall, in issuing any further certificate in favour of the Contractor, deduct from the amount thereof the amount so paid, direct as aforesaid, but shall not withhold or delay the issue of the certificate itself when due to be issued under the terms of the Contract.

6 Staff and Labour

6.1 Engagement of Staff and Labour

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. In engagement of labour, the provisions in that respect contained in the Framework Agreement shall be fully complied with by the Contractor.

6.2 Foreign staff, labour and Repatriation.

The Contractor may import to the country where Works are executed any personnel who are necessary for the execution of Works. The Contractor must ensure that these personnel are provided with the required residence visas and work permits. The Contractor shall be responsible for the return to the place where they were recruited or to their domicile of all such persons as he recruited and employed for the purposes of or in connection with the contract and he shall maintain such persons as are to be so returned in a suitable manner until they shall have left the site.

6.3 Housing for Labour

Save insofar as the contract otherwise provides, the Contractor shall provide and maintain such accommodation and amenities as he may consider necessary for all his staff and labour, employed for the purposes of or in connection with the Contract, including all fencing, water supply (both for drinking and other purposes), electricity supply, sanitation, cookhouses, fire prevention and fire-fighting equipment, air conditioning, cookers, refrigerators, furniture and other requirements in connection with such accommodation or amenities. On completion of the Contract, unless otherwise agreed with the Employer, the temporary camps / housing provided by the Contractor shall be removed and the site reinstated to its original condition, all to the approval of the Engineer.

6.4 Health and Safety

Due precautions shall be taken by the contractor, and at his own cost, to ensure the safety of his staff and labour and, in collaboration with and to the requirements of the local health authorities, to ensure that medical staff, first aid equipment and store, sick bay and suitable ambulance service to the maximum extent the site conditions permit, are available at the camps, housing and on the Site at all times throughout the period of the contract and that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

6.5 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect all staff and labour employed on the site from insect nuisance, rats and other pests and reduce the dangers to health and the general nuisance occasioned by the same. The Contractor shall provide his staff and labour with suitable prophylactics for the prevention of malaria and take steps to prevent the formation of stagnant pools of water. He shall comply with all the regulations of the local health authorities in these respects and shall in particular arrange to spray thoroughly with approved insecticide all buildings erected on the Site. Such treatment shall be carried out at least once a year or as frequently as necessary or as instructed by the Engineer. The contractor shall warn his staff and labour of the dangers of hazardous flora and fauna within the project area.

6.6 Epidemics

In the event of any outbreak of illness of an epidemic nature, the contractor shall comply with and carry out such regulations, orders and 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.

6.7 Arms and ammunition

The Contractor shall not give, barter or otherwise dispose of to any person, any arms or ammunitions of any kind, or allow Contractor's personnel to do so.

6.8 Fair Wages

The Contractor shall pay to labourer employed by him either directly or through sub-contractor's wages not less than wages as defined in Minimum Wages Act 1948 and Contract Labour (Regulation and Abolition) Act 1970 amended from time to time and rules framed there-under and other labour laws affecting contract labour that may be brought in force from time to time.

In respect of labour directly or indirectly employed in the works, the contractor shall comply with the rules and regulations on the maintenance of suitable records prescribed for this purpose from time to time by the Government. He shall maintain his accounts and vouchers on the payment of wages to the labourers to the satisfaction of the Engineer. The Engineer shall have the right to call for such record as required to satisfy himself on the payment of fair wages to the labourers and shall have the right to deduct from the contract amount a suitable amount for making good the loss suffered by the worker or workers by reason of the "fair wages" clause to the workers.

The contractor shall be primarily liable for all payments to be made and for the observance of the regulations framed by the Government from time to time without prejudice to his right to claim indemnity from his sub-contractors. Equal wages are to be paid for both men and women if the nature of work is same and similar.

6.9 Return of Labour and Contractor's Equipment

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such information regarding Contractor's Equipment as the Engineer may require.

6.10 Child labour

The Contractor shall not engage children below the age of 14, directly or indirectly, for the execution of this contract. Contractor shall observe compliance to all the acts pertaining to child labour, health & safety and any other such laws existing in the Employers country. If at any time children below the age of 14 are found to be engaged, directly or indirectly, by the contractor or his representatives, the contractor shall face deduction of an amount of 1% of the amount from the bill submitted by the contractor after such discovery. This deduction shall be in addition of the penalties imposed by concerned regulatory bodies for practicing child labour.

6.11 Removal of Contractor's men

The Contractor shall employ for the execution of the works only such persons who are skilled and experienced in their respective trades and Engineer-in-charge shall be at liberty to object and to ask the contractor to remove from the works any persons employed by the contractor for the execution of the works who, in the opinion of the EIC, misconduct themselves or are incompetent or negligent in the proper performance of their duties. The contractor shall forthwith comply with such requisition and such persons shall not be again employed upon the works without the written permission of the EIC. Any person so removed from the work shall be immediately replaced at the expense of the contractor by a qualified and competent substitute. Should the contractor be requested to repatriate any person removed from the work, he shall do so and shall bear all costs in connection herewith.

6.12 Replacement of Key Personnel

The replacement of the key personnel shall only be on health grounds of the individual or if the personnel ceases to work for the contractor and is no longer an employee of the contractor. The contractor shall not replace any of the key personnel without the written consent of the Engineer-in-charge. In case Contractor engages in such activity i.e. replacement of key personnel with or without EICs consent, such action shall attract a deduction of 10% of the total amount from the running account bill. However, there shall be no deduction if the replacement is made on health grounds of the personnel. The contractor shall submit medical certificate of such personnel intended to be replaced on health grounds.

6.13 Labour laws

The Contractor shall also comply with the provisions of all Acts, Laws, any Regulation or Bye Laws of any Local or other Statutory Authority applicable in relation to the execution of works such as:

(i) Payment of Wages Act, 1936 (Amended)

- (ii) Minimum Wages Act, 1948 (Amended).
- (iii) The Contract Labour (Regulation & Abolition) Act, 1970 with Rules framed there under as amended.
- (iv) Workmen Compensation Act, 1923 as amended by Amendment Act no.65 of 1976.
- (v) Employer's Liability Act 1938 (Amended)
- (vi) Maternity Benefit Act. 1961 (Amended)
- (vii) The Industrial Employment (Standing orders) Act 1946 (Amended).
- (viii) The Industrial Disputes Act. 1947 (Amended)
- (ix) Payment of Bonus Act.1965 and Amended Act No. 43 of 1977 and No. 48 of 1978 and any amended thereof:
- (x) The Personal Injuries (Compensation Insurance) Act 1963 and any modifications thereof and rules made thereunder from time to time. The Contractor shall take into account all the above and financial liabilities in his quoted rates and nothing extra, whatsoever, shall be payable to him on this account.

The list is indicative only, otherwise the contractor should be aware of all the Acts/Labour Laws and should follow diligently on the work. The contractor shall be fully and personally responsible for the violation of any Act/Labour Law.

7 Materials, Plant and Workmanship

7.1 Quality of Materials, Plant and Workmanship

All materials, Plant and workmanship shall be:

- (a) of the respective kinds described in the Contract and in accordance with the EIC's instructions, and
- subjected from time to time to such tests as the EIC may require at the place of manufacture, fabrication or preparation, or on the Site or at such other place or places as may be specified in the Contract, or at all or any of such places.

The Contractor shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or Plant and shall supply samples of materials, before incorporation in the Works, for testing as may be selected and required by the Engineer.

The Contractor is encouraged, to the extent practicable and reasonable, to use materials, Contractor's Equipment, Plant, and supplies from sources within the country of the Employer and the country where Works are executed.

7.2 **Cost of Samples**

All samples shall be supplied by the Contractor at his own cost if the supply thereof is clearly intended by or provided for in the Contract.

7.3 Cost of Tests

The cost of making any test shall be borne by the Contractor if such test is:

- (a) clearly intended by or provided for in the Contract, or
- (b) particularised in the Contract (in cases of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfil) in sufficient detail to enable the Contractor to price or allow for the same in his Tender.

7.4 Cost of Tests not provided for

If any test required by the Engineer which is:

- (a) not provided for,
- (b) (in the cases above mentioned) not so particularised, or
- (c) (though so intended or provided for) required by the Engineer to be carried out at any place other than the Site or the place of manufacture, fabrication or preparation of the materials or Plant tested, shows the materials, Plant or workmanship not to be in accordance with the provisions of the Contract to the satisfaction of the Engineer, then the cost of such test shall be borne by the Contractor, but in any other case Sub-Clause 7.3 shall apply.

7.5 Engineer's Determination where Tests not provided for

Where, pursuant to Sub-Clause 7.4, this Sub-Clause applies, the Engineer shall, after due consultation with the Contractor, determine any extension of time to which the Contractor is entitled under sub clause 8.6,8.7 and 8.8 of clause 8.

7.6 Inspection of Operations

The Engineer, and any person authorised by him, shall at all reasonable times have access to the Site and to all workshops and places where materials or Plant are being manufactured, fabricated or prepared for the Works and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

7.7 Inspection and Testing

The Engineer shall be entitled, during manufacture, fabrication or preparation to inspect and test the materials and Plant to be supplied under the Contract. If materials or Plant are being manufactured, fabricated or prepared in workshops or places other than those of the Contractor, the Contractor shall obtain permission for the Engineer to carry out such inspection and testing in those workshops or places. Such inspection or testing shall not release the Contractor from any obligation under the Contract.

7.8 Dates for Inspection and Testing

The Contractor shall agree with the Engineer on the time and place for the inspection or testing of any materials or Plant as provided in the Contract. The Engineer shall give the Contractor not less than 24 hours' notice of his intention to carry out the inspection or to attend the tests. If the Engineer, or his duly authorised representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with the tests and forthwith forward to the Engineer duly certified copies of the test readings. The Engineer will at the earliest but not later than 7 days from the date of receipt of such test-report, carryout scrutiny of the test readings and communicate to Contractor his concurrence to same or objections with reasons and

instruction on further steps to be taken. If no communication is made by the Engineer within 7 days, the test shall be deemed to have been made in the presence of the Engineer.

7.9 Rejection

If, at the time and place agreed in accordance with Sub-Clause 7.8, the materials or Plant are not ready for inspection or testing or if, as a result of the inspection testing referred to in this Clause, the Engineer determines that the materials or Plant are defective or otherwise not in accordance with the Contract, he may reject the materials or Plant and shall notify the Contractor thereof immediately. The notice shall state the Engineer's objections with reasons. The Contractor shall then promptly make good the defect or ensure that rejected materials or Plant comply with the Contract. If the Engineer so requests, the tests of rejected materials or Plant shall be made or repeated under the same terms and conditions. All costs incurred by the Engineer by the repetition of the tests shall, after due consultation with the employer, be determined by the Engineer and shall be recoverable from the Contractor by the Employer and may be deducted from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the employer.

7.10 Independent Inspection

The Engineer may delegate inspection and testing of materials, Works or Plant to an independent inspector or inspecting agency of specialised competence, experience or accreditation in carrying out such inspection. Any such delegation shall be effected in accordance with Sub-Clause 3.4 and for this purpose such independent inspector shall be considered as an assistant of the Engineer.

7.11 Examination of Work before Covering up

No part of the Works shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any such part of the Works which is about to be covered up or put out of view and to examine foundations before any part of the Works is placed thereon. The Contractor shall give notice to the Engineer whenever any such part of the Works or foundations is or are ready or about to be ready for examination and the Engineer shall, without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such part of the Works or of examining such foundations.

7.12 Uncovering and Making Openings

The Contractor shall uncover any part of the Works or make openings in or through the same as the Engineer may from time to time instruct and shall reinstate and make good such part. If any such part has been covered up or put out of view after compliance with the requirement of Sub-Clause 7.11 and is found to be executed in accordance with the Contract, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of the Contractor's costs in respect of such uncovering, making openings in or through, reinstating and making good the same, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer. In any other case all costs shall be borne by the Contractor.

7.13 Removal of Improper Work, Materials or Plant

The Engineer shall have authority to issue instructions from time to time, for:

- (a) the removal from the Site, within such time or times as may be specified in the instruction, of any materials or Plant which, in the opinion of the Engineer, are not in accordance with the Contract,
- (b) the substitution of proper and suitable materials or Plant, and
- (c) the removal and proper re-execution, notwithstanding any previous test thereof or interim payment of any work, in respect of
 - (i) materials, Plant or workmanship, or
 - (ii) design by the Contractor or for which he is responsible, is not, in the opinion of the Engineer, in accordance with the Contract.

7.14 Default of Contractor in Compliance

In case of default on the part of the Contractor in carrying out such instruction within the time specified therein or, if none, within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

8 Commencement delays and suspensions

8.1 Commencement of Works

The Contractor shall commence the Works as soon as is reasonably possible after the receipt by him of a notice to this effect from the Engineer, which notice shall be issued within the time stated in the delivery schedule. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

8.2 Possession of Site and Access Thereto

As the Contract may prescribe:

- (a) the extent of portions of the Site of which the Contractor is to be given possession from time to time
- (b) the order in which such portions shall be made available to the Contractor, and, subject to any requirement in the Contract as to the order in which the Works shall be executed, the Employer will, with the Engineer's notice to commence the Works, give to the Contractor possession of
- (c) so much of the Site, and
- (d) such access as, in accordance with the Contract, is to be provided by the Employer as may be required to enable the Contractor to commence and proceed with the execution of the Works in accordance with the programme referred to in Clause 4.9, if any, and otherwise in accordance with such reasonable proposals as the Contractor shall, by notice to the Engineer with a copy to the Employer, make. The Employer will, from time to time as the Works proceed, give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the execution of the Works with due dispatch in accordance with such programme or proposals, as the case may be.

8.3 Failure to Give Possession

If the Contractor suffers delay and / or incurs costs from failure on the part of the Employer to give possession and access in accordance with the terms of Sub-Clause 8.2, the Engineer shall, after due consultation with the Employer and the Contractor, determine any extension of time to which the Contractor is entitled under sub clause 8.6,8.7 and 8.8 of clause 8.

8.4 Rights of Way and Facilities

The Contractor shall bear all costs and charges for special or temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works.

8.5 Time for Completion

The whole of the Works and, if applicable, any Section required to be completed within a particular time as stated in the delivery schedule, shall be completed in accordance with the provisions of Clause 10, within the time stated in the delivery schedule for the whole of the Works or the Section (as the case may be), calculated from the Commencement Date, or such extended time as may be allowed under sub clause 8.6, 8.7 and 8.8 of clause 8.

8.6 Extension of Time for Completion

In the event of:

- (a) the amount or nature of extra or additional work,
- (b) any cause of delay referred to in these Conditions,
- (c) exceptionally adverse climatic conditions,
- (d) any delay, impediment or prevention by the Employer, or
- (e) other special circumstances which may occur, other than through a default of or breach of contract by the Contractor or for which he is responsible,

being such as fairly to entitle the Contractor to an extension of the Time for Completion of the Works, or any Section or part thereof, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of such extension and shall notify the Contractor accordingly, with a copy to the Employer.

8.7 Contractor to Provide Notification and Detailed Particulars

Provided that the Engineer is not bound to make any determination unless the Contractor has

- (a) within 28 days after such event has first arisen notified the Engineer with a copy to the Employer, and
- (b) within 28 days, or such other reasonable time as may be agreed by the Engineer, after such notification submitted to the Engineer, detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

8.8 Interim Determination of Extension

Provided also that where an event has a continuing effect such that it is not practicable for the Contractor to submit detailed particulars within the period of 28 days referred to in Sub-Clause

8.7 (b), he shall nevertheless be entitled to an extension of time provided that he has submitted to the Engineer interim particulars at intervals of not more than 28 days and final particulars within 28 days of the end of the effects resulting from the event. On receipt of such interim particulars, the Engineer shall, without undue delay, make an interim determination of extension of time and, on receipt of the final particulars, the Engineer shall review all the circumstances and shall determine an overall extension of time in regard to the event. In both such cases the Engineer shall make his determination after due consultation with the Employer and the Contractor and shall notify the Contractor of the determination, with a copy to the Employer. No final review shall result in a decrease of any extension of time already determined by the Engineer.

8.9 Restriction on Working Hours

Subject to any provision to the contrary contained in the Contract, none of the Works shall, save as hereinafter provided, be carried on during the night or on locally recognised days of rest without the consent of the Engineer. Provided that the provisions of this Clause shall not be applicable in the case of any work which it is customary to carry out by multiple shifts.

8.10 Progress Reports

Unless otherwise stated, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates. Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the completion Certificate for the Works.

Each report shall include:

- (a) charts and detailed descriptions of progress, including each stage of execution, Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection, testing, commissioning and trial operation;
- (b) photographs showing the status of progress on the Site;
- (c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
 - (i) commencement of manufacture,
 - (ii) Contractor's inspections,
 - (iii) tests, and
 - (iv) shipment and arrival at the Site;
- (d) the details of Contractor's Personnel and Equipment deployed during the report period;
- (e) list of Variations, and notices given, if any, under Sub-Clauses related to Employer's Claims and Contractor's Claims;
- (f) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and

- (g) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.
- (h) One-month target to be taken up along with comments to catch up the slipped milestone/target.

8.11 Rate of Progress

If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the Works or any Section is at any time, in the opinion of the Engineer, too slow to comply with the Time for Completion, the Engineer shall so notify the Contractor who shall thereupon take such steps as are necessary, subject to the consent of the Engineer, to expedite progress so as to comply with the Time for Completion. The Contractor shall not be entitled to any additional payment for taking such steps.

8.12 Liquidated Damages (LD) for Delay

If the Contractor fails to comply with the Time for Completion in accordance with Section VI: ToR, for the whole of the works, then the Contractor shall pay to the Employer the relevant sum stated in the table appended in SCC as LD for such default and not as a penalty (which sum shall be the only monies due from the Contractor for such default). The Employer may, without prejudice to any other method of recovery, withheld / deduct the amount of such damages from any money due or to become due to the Contractor. The amount withheld or deducted against such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the Contract.

8.13 Permanent deduction of Liquidated Damages

In case the Contractor does not complete the work in time, extension of time shall be given to the Contractor to complete the work. It shall be at sole discretion of the EIC, who shall take all causes of delay into account, to provide extension of time withholding the LD accrued till the completion. The EIC may even release the accrued LD in case he finds the causes of delay were attributable to Employer or to other reasons for which the Contractor cannot be held accountable.

8.14 Reduction of Liquidated Damages

If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking-Over Certificate has been issued for any part of the Works or of a Section, the LD for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of LD and shall not affect the limit thereof.

8.15 Suspension of Work

The Contractor shall, on the instructions of the Employer communicated by the Engineer, suspend the progress of the Works or any part thereof for such time and in such manner as the Engineer may consider necessary and shall, during such suspension, properly protect and secure the Works or such part thereof so far as is necessary in the opinion of the Engineer. Unless such suspension is:

- (a) otherwise provided for in the Contract,
- (b) necessary by reason of some default of or breach of contract by the Contractor or for which he is responsible
- (c) necessary by reason of climatic conditions on the Site, or
- (d) necessary for the proper execution of the Works or for the safety of the Works or any part thereof (save to the extent that such necessity arises from any act or default by the Engineer or the Employer or from any of the risks defined in Sub-Clause 2.2), Sub-Clause 8.15 shall apply.

8.16 Engineer's Determination following Suspension

Where, pursuant to Sub-Clause 8.15, this Sub-Clause applies the Engineer shall after due consultation with the Employer and the Contractor, determine

- (a) any extension of time to which the Contractor is entitled under sub clause 8.6,8.7 and 8.8 of clause 8, and
- (b) the amount, if any, which shall be added to the Contract Price, in respect of the cost incurred by the Contractor by reason of such suspension, and shall notify the Contractor accordingly, with a copy to the Employer.

8.17 Suspension lasting more than 84 Days

If the progress of the Works or any part thereof is suspended on the instructions of the Engineer and if permission to resume work is not given by the Engineer within a period of 84 days from the date of suspension then, unless such suspension is within paragraph (a), (b), (c) or (d) of Sub-Clause 8.15, the Contractor may give notice to the Engineer requiring permission, within 28 days from the receipt thereof, to proceed with the Works or that part thereof in regard to which progress is suspended. If, within the said time, such permission is not granted, the Contractor may, but is not bound to, elect to treat the suspension, where it affects part only of the Works, as an omission of such part under Clause 13.1 and 13.2 by giving a further notice to the Engineer to that effect, or, where it affects the whole of the Works, treat the suspension as an event of default by the Employer and terminate his employment under the Contract in accordance with the provisions of Sub-Clause 18.1, whereupon the provisions of Sub-Clauses 18.2 and 18.3 shall apply.

9 Tests on Completion

9.1 Contractors obligation

The Contractor shall carry out all tests as per requirement of this contract. No additional charges on any such account shall be payable by the Employer.

The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on completion. Unless otherwise agreed, Tests on completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 Delayed Test

If the Contractor is prevented, for more than 14 days, from carrying out on Completion by a cause for which the Employer is responsible, the Employer shall be deemed to have taken over the Works on the date when the Completion would otherwise have been completed.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Completion, the Contractor shall give notice to Employer / Engineer and shall be entitled.

- (a) an extension of time for any such delay, if completion is or will be delayed, and
- (b) Payment of any such Cost plus reasonable profit, which shall be additional to the Contract Price.

After receiving this notice, Engineer / Employer shall proceed to agree or determine these matters

9.3 Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.9 [Rejection] shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests of Completion on any related work, to be repeated under the same terms and conditions.

9.4 Failure to Remedy Defects

If the Contractor fails to remedy any damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the damage by this notified date and this remedial work was to be executed at the cost of the Contractor, following shall be undertaken by the Employer / Engineer:

- (a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall pay to the Employer the costs reasonably incurred by the Employer in remedying the damage;
- **(b)** Require Engineer / Employer to agree or determine a reasonable reduction in the Contract Price.

10 Employer's Taking over

10.1 Taking-Over Certificate

When the whole of the Works have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer, with a copy to the Employer, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer to issue a Taking-Over Certificate in respect of the Works. The Engineer shall, within 21 days of the date of delivery of such notice, either issue to the Contractor, with a copy to the Employer, a Taking-Over Certificate, stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract, or give instructions in writing to the Contractor

specifying all the work which, in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the Works specified therein. The Contractor shall be entitled to receive such Taking-Over Certificate within 21 days of completion, to the satisfaction of the Engineer, of the Works so specified and remedying any defects so notified.

10.2 Taking Over of Sections or Parts

Similarly, in accordance with the procedure set out in Sub-Clause 10.1, the Contractor may request and the Engineer shall issue a Taking-Over Certificate in respect of:

- (a) any Section in respect of which a separate Time for Completion is provided in the SCC,
- (b) any substantial part of the Permanent Works which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the Contract, occupied or used by the Employer, or
- (c) any part of the Permanent Works which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).
- (d) Punch list of the rectifications to be issued by the Engineer to the contractor.

10.3 Substantial Completion of Parts

If any part of the Permanent Works has been substantially completed and has satisfactorily passed any Tests on Completion prescribed by the Contract, the Engineer may issue a Taking-Over Certificate in respect of that part of the Permanent Works before completion of the whole of the Works and, upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the Permanent Works during the Defects Liability Period.

11 Defects Liability

11.1 Defects Liability Period

In these Conditions, the expression "Defects Liability Period" shall mean the defects liability period, calculated from:

- (a) the date of completion of the Works certified by the Engineer in accordance with Clause 10, or
- (b) in the event of more than one certificate having been issued by the Engineer under Clause 10, the respective dates so certified,

and in relation to the Defects Liability Period the expression "the Works" shall be construed accordingly.

11.2 Completion of Outstanding Work and Remedying Defects

To the intent that the Works shall, at or as soon as practicable after the expiration of the Defects Liability Period, be delivered to the Employer in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall

- (a) complete the work, if any, outstanding on the date stated in the Taking Over Certificate as soon as practicable after such date, and
- (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

11.3 Cost of Remedying Defects

All work referred to in Sub-Clause 11.2 (b) shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the Engineer, due to:

- (a) the use of materials, Plant or workmanship not in accordance with the Contract,
- (b) where the Contractor is responsible for the design of part of the Permanent works, any fault in such design, or
- (c) the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.

If, in the opinion of the Engineer, such necessity is due to any other cause, he shall determine an addition to the Contract Price in accordance with Clause 13.3,13.4 & 13.5 and shall notify the Contractor accordingly, with a copy to the Employer.

11.4 Contractor's Failure to Carry Out Instructions

In case of default on the part of the Contractor in carrying out such instruction within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and if such work is work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

11.5 Contractor to Search

If any defect, shrinkage or other fault in the Works appears at any time prior to the end of the Defects Liability Period, the Engineer may instruct the Contractor, with copy to the Employer, to search under the directions of the Engineer for the cause thereof. Unless such defect, shrinkage or other fault is one for which the Contractor is liable under the Contract, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount in respect of the costs of such search incurred by the Contractor, which shall be added to the Contract Price and shall notify the Contractor accordingly, with a copy to the Employer. If such defect, shrinkage or other fault is one for which the Contractor is liable, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own cost in accordance with the provisions of Clause 11.

11.6 Approval only by Defects Liability Certificate

Only the Defects Liability certificate, referred to in clause 11.7 and 11.8, shall be deemed to constitute final approval of works.

11.7 Defects Liability Certificate

The Contract shall not be considered as completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to, the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete the Works and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the Defects Liability Period, or, if different defects liability periods shall become applicable to different Sections or parts of the Permanent Works, the expiration of the latest such period, or as soon thereafter as any works instructed, pursuant to Clauses 11.1 to 11.5, have been completed to the satisfaction of the Engineer. Provided that the issue of the Defects Liability Certificate shall not be a condition precedent to payment to the Contractor of the second portion of the Retention Money in accordance with the conditions set out in Sub-Clause 15.5.

11.8 Unfulfilled Obligations

Notwithstanding the issue of the Defects Liability Certificate the Contractor and the Employer shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract prior to the issue of the Defects Liability Certificate which remains unperformed at the time such Defects Liability Certificate is issued and, for the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties to the Contract.

12 Measurement & omissions

12.1 Quantities

The quantities set out in the Bill of Quantities are the estimated quantities for the Works, and they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfilment of his obligations under the Contract.

12.2 Work to be Measured

The Engineer, shall except as otherwise stated, ascertain and determine by measurement, the value of the Works in accordance with the Contract and the Contractor shall be paid that value in accordance with Clause 15. The Engineer shall, when he requires any part of the Works to be measured, give reasonable notice to the Contractor's authorised agent, who shall:

- (a) forthwith attend or send a qualified representative to assist the Engineer in making such measurement, and
- (b) supply all particulars required by the Engineer.

Should the Contractor not attend, or neglect or omit to send such representative, then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of such part of the Works. For the purpose of measuring such Permanent Works as are to be measured by records and drawings, the Engineer shall prepare records and drawings as

the work proceeds and the Contractor, as and when called upon to do so in writing, shall, within 14 days, attend to examine and agree such records and drawings with the Engineer and shall sign the same when so agreed. If the Contractor does not attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the Contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor, within 14 days of such examination, lodges with the Engineer notice of the respects in which such records and drawings are claimed by him to be incorrect. On receipt of such notice, the Engineer shall review the records and drawings and either confirm or vary them.

12.3 Method of Measurement

The Works shall be measured net, notwithstanding any general or local custom, except where otherwise provided for in the Contract.

12.4 Breakdown of Lump Sum Items

For the purposes of statements submitted in accordance with Sub-Clause 15.1, the Contractor shall submit to the Engineer, within 21 days after the receipt of the LoA, a breakdown for each of the lump sum items contained in the Tender. Such breakdowns shall be subject to the approval of the Engineer.

12.5 Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- (a) the Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;
- (b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- (c) This cost is not deemed to be included in the evaluation of any substituted work;

then the Contractor shall give notice to Engineer / Employer accordingly, with supporting particulars. Upon receiving this notice, Engineer / Employer shall to agree or determine this cost, which shall be included in the Contract Price.

13 Variations, adjustments and Additions

13.1 Variation

The Engineer shall make any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:

- (a) increase or decrease the quantity of any work included in the Contract,
- (b) omit any such work (but not if the omitted work is to be carried out by the Employer or by another contractor),
- (c) change the character or quality or kind of any such work,

- (d) change the levels, lines, position and dimensions of any part of the Works,
- (e) execute additional work of any kind necessary for the completion of the Works, or
- (f) change any specified sequence or timing of construction of any part of the Works.

No such variation shall in any way validate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with Clause 13.3, 13.4 and 13.5. Provided that where the issue of an instruction to vary the Works is necessitated by some default of or breach of contract by the Contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the Contractor.

13.2 Instructions for Variations

The Contractor shall not make any such variation without an instruction of the Engineer.

13.3 Valuation of Variations

All variations referred to in Clause 13.1 & 13.2 and any additions to the Contract Price which are required to be determined in accordance with Clause 13.3, 13.4 and 13.5 (for the purposes of this Clause referred to as "varied work"), shall be valued at the rates and prices set out in the Contract if, in the opinion of the Engineer, the same shall be applicable. If the Contract contain any rates or prices applicable to the varied work, the rates and prices in the Contract shall be used as the basis for valuation so far as may be reasonable, failing which, after due consultation by the Engineer with the Employer and the Contractor, suitable rates or prices shall be agreed upon between the Engineer and the Contractor. In the event of disagreement, the Engineer shall fix such rates or prices as are, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 15.

13.4 Power of Engineer to Fix Rates

Provided that if the nature or amount of any varied work relative to the nature or amount of the whole of the Works or to any part thereof, is such that, in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such varied work, rendered inappropriate or inapplicable, then, after due consultation by the Engineer with the Employer and the Contractor, a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement, the Engineer shall fix such other rate or price as is, in his opinion, appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 15.

Provided also that no varied work instructed to be done by the Engineer pursuant to Clause 13.1 &13.2 shall be valued under Sub-Clause 13.3 or under this Sub-Clause unless, within 14 days of the date of such instruction and, other than in the case of omitted work, before the commencement of the varied work, notice shall have been given either:

- (a) by the Contractor to the Engineer of his intention to claim extra payment or a varied rate or price, or
- (b) by the Engineer to the Contractor of his intention to vary a rate or price/

13.5 Variations Exceeding 20 per cent

Variations up to +/- 20% shall be Contractor's liability with the same items rate for varied works as per contract. If, on the issue of the Taking-Over Certificate for the whole of the Works, it is found that as a result of,

- (a) all varied work valued under Sub-Clauses 13.3 and 13.4, and
- (b) all adjustments in the estimated quantities set out in the Bill of Quantities, excluding adjustments of price made under Clause 23,

but not from any other cause, there have been additions to or deductions from the Contract Price in excess of 20 per cent at variance with the Contract Price, then and in such event, after due consultation by the Engineer with the Employer and the Contractor, certain amount in the quoted rate of items shall be added or subtracted from the contract price. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer. Such sum shall be based only on the amount by which such additions or deductions shall be at variance in excess of 20 per cent with the Contract Price.

14 Special Risks

14.1 No Liability for Special Risks

The Contractor shall be under no liability whatsoever in consequence of any of the special risks referred to in Sub-Clause 14.2, whether by way of indemnity or otherwise, for or in respect of:

- (a) Destruction of or damage to the Works, save to work condemned under the provisions of Clause 7.13 and 7.14 prior to the occurrence of any of the said special risks,
- (b) Destruction of or damage to property, whether of the Employer or third parties, or
- (c) Injury or loss of life.

14.2 Special Risks

The special risks are:

- (a) the risks defined under paragraphs (a), (c), (d) and (e) of Sub-Clause 2.2, and
- b) the risks defined under paragraph (b) of Sub-Clause 2.2 insofar as these relate to the country in which the Works are to be executed.

14.3 Damage to Works by Special Risks

If the Works or any materials or Plant on or near or in transit to the Site, sustain destruction or damage by reason of any of the said special risks, the Contractor shall be entitled to payment in accordance with the Contract for any Permanent Works duly executed and for any materials or Plant so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the Works, to payment for:

- (a) Rectifying any such destruction or damage to the Works, and
- (b) Replacing or rectifying such materials or plant, and the Engineer shall determine an addition to the Contract Price in accordance with Clause 13.3, 13.4 & 13.5 and shall notify the Contractor accordingly, with a copy to the Employer.

14.4 Projectile, Missile

Destruction, damage, injury or loss of life caused by the explosion or impact, whenever and wherever occurring, of any mine, bomb, shell, grenade, or other projectile, missile, munitions, or explosive of war, shall be deemed to be a consequence of the said special risks.

14.5 Increased Costs arising from Special Risks

Save to the extent that the Contractor is entitled to payment under any other provision of the Contract, the Employer shall pay to the Contractor any costs of the execution of the Works (other than such as may be attributable to the cost of reconstructing work condemned under the provisions of Clause 7.13 & 7.14 prior to the occurrence of any special risk) which are howsoever attributable to or consequent on or the result of or in any way whatsoever connected with the said special risks, subject however to the provisions in this Clause hereinafter contained in regard to outbreak of war, but the Contractor shall, as soon as any such cost comes to his knowledge, forthwith notify the Engineer thereof. The Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of the Contractor's costs in respect thereof which shall be added to the Contract Price and shall notify the Contractor accordingly, with a copy to the Employer.

14.6 Outbreak of War

If, during the currency of the Contract, there is an outbreak of war, whether war is declared or not, in any part of the world which, whether financially or otherwise, materially affects the execution of the Works, the Contractor shall, unless and until the Contract is terminated under the provisions of this Clause, continue to use his best endeavours to complete the execution of the Works. Provided that the Employer shall be entitled, at any time after such outbreak of war, to terminate the Contract by giving notice to the Contractor and, upon such notice being given, the Contract shall, except as to the rights of the parties under this Clause and Clause 16.3, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

14.7 Removal of Contractor's Equipment on Termination

If the Contract is terminated under the provisions of Sub-Clause 14.6, the Contractor shall, with all reasonable dispatch, remove from the Site all Contractor's Equipment and shall give similar facilities to his Subcontractors to do so.

14.8 Payment if Contract Terminated

If the Contract is terminated as aforesaid, the Contractor shall be paid by the Employer, insofar as such amounts or items have not already been covered by payments on account made to the Contractor, for all work executed prior to the date of termination at the rates and prices provided in the Contract and in addition:

- (a) The amounts payable in respect of any preliminary items referred to in the Bill of Quantities, so far as the work or service comprised therein has been carried out or performed, and a proper proportion of any such items which have been partially carried out or performed;
- (b) The cost of materials, Plant or goods reasonably ordered for the Works which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery, such materials, Plant or goods becoming the property of the Employer upon such payments being made by him;

- (c) A sum being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the Works insofar as such expenditure has not been covered by any other payments referred to in this Sub-Clause;
- (d) Any additional sum payable under the provisions of Sub-Clauses 14.3 and 14.5;
- (e) such proportion of the cost as may be reasonable, taking into account payments made or to be made for work executed, of removal of Contractor's Equipment under Sub-Clause 14.7 and, if required by the Contractor, return thereof to the Contractor's main plant yard in his country of registration or to other destination, at no greater cost; and
- (f) The reasonable cost of repatriation of all the Contractor's staff and workmen employed on or in connection with the Works at the time of such termination.

Provided that against any payment due from the Employer under this Sub-Clause, the Employer shall be entitled to be credited with any outstanding balances due from the Contractor for advances in respect of mobilization and any other sums which, at the date of termination, were recoverable by the Employer from the Contractor under the terms of the Contract. Any sums payable under this Sub-Clause shall, after due consultation with the Employer and the Contractor, be determined by the Engineer who shall notify the Contractor accordingly, with a copy to the Employer.

15 Certificates and Payment

15.1 Running Account Bills/ Monthly Statements

The Contractor shall submit to the Engineer after the end month three copies, each signed by the Contractor's representative approved by the Engineer in accordance with Sub-Clause 4.10, of a statement, in such form as the Engineer may from time to time prescribe, showing the amounts expressed in Indian Rupees, to which the Contractor considers himself to be entitled in respect of:

- (a) The value of the Works executed with reference to the contract
- **(b)** Any other items in the Bill of Quantities
- (c) the percentage of the invoice value of listed materials, all as stated in the SCC, and Plant delivered by the Contractor on the Site for incorporation in the Permanent Works but not incorporated in such Works,
- (d) Adjustments under Clause 24, and
- (e) Any other sum to which the Contractor may be entitled under the Contract or otherwise.

15.2 Payments

The Engineer shall, within 30 days of receiving such statement, deliver to the Employer an Interim Payment Certificate stating the amount of payment to the Contractor which the Engineer considers due and payable in respect of such statement, subject:

(a) firstly, to the retention of the amount calculated by applying the Percentage of Retention stated in the SCC, to the amount to which the Contractor is entitled under paragraphs (a), (b), (c) and (e) of Sub-Clause 15.1 until the amount so retained reaches the Limit of Retention Money stated in the SCC, and

(b) secondly, to the deduction, other than pursuant to Clause 8.12 and 8.13, of any sums which may have become due and payable by the Contractor to the Employer.

Provided that the Engineer shall not be bound to certify any payment under this Sub-Clause if the net amount thereof, after all retentions and deductions, would be less than the Minimum Amount of Interim Payment Certificates stated in the SCC.

Notwithstanding the terms of this Clause or any other Clause of the Contract, no amount will be certified by the Engineer for payment until the performance security, if required under the Contract, has been provided by the Contractor and approved by the Employer.

15.3 Place of Payment

Payments to the Contractor by the Employer shall be made in the currencies in which the Contract Price is payable into a bank account or accounts nominated by the Contractor in the country of the Employer.

15.4 Retention Money

A retention amounting to the percentage stipulated in the SCC shall be made by the Engineer in the first and following Interim Payment Certificates till the specified limit of Retention money as in SCC.

15.5 Payment of Retention Money

- (a) Upon the issue of the Taking-Over Certificate with respect to the whole of the Works, one half of the Retention Money, or upon the issue of a Taking-Over Certificate with respect to a Section or part of the Permanent Works only such proportion thereof as the Engineer determines having regard to the relative value of such Section or part of the Permanent Works, shall be certified by the Engineer for payment to the Contractor.
- (b) Upon the expiration of the Defects Liability Period for the Works the other half of the Retention Money shall be certified by the Engineer for payment to the Contractor. Provided that, in the event of different Defects Liability Periods having become applicable to different Sections or parts of the Permanent Works pursuant to Clause 10, the expression "expiration of the Defects Liability Period" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods. Provided also that if at such time there shall remain to be executed by the Contractor any work instructed, pursuant to Clause 11, in respect of the Works, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.

15.6 Correction of Certificates

The Engineer may by any Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate which shall have been issued by him and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such work in any Interim Payment Certificate.

15.7 Statement at Completion

Not later than 30 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer six copies of Statement at Completion with supporting documents showing in detail, in the form approved by the Engineer:

- (a) the final value of all work done, in Indian Rupees, in accordance with the Contract up to the date stated in such completion Certificate,
- (b) any further sums which the Contractor considers to be due, and
- (c) an estimate of amounts which the Contractor considers will become due to him under the Contract.

The estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with Sub-Clause 15.2.

15.8 Final Statement

Not later than 30 days after the issue of Completion Certificate, the Contractor shall submit to the Engineer for consideration three copies of a draft final statement with supporting documents showing in detail, in the form approved by the Engineer:

- (a) the value of all work done in accordance with the Contract, and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these Conditions referred to as the "Final Statement").

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer an Interim Payment Certificate for those parts of the draft final statement, if any, which are not in dispute. The dispute may then be settled in accordance with Clause 16.3.

15.9 Discharge

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Payment Certificate issued pursuant to Sub-Clause 15.10 has been made and the performance security referred to in Sub-Clause 4.4, if any, has been returned to the Contractor.

15.10 Final Payment Certificate

Within 14 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Employer (with a copy to the Contractor) a Final Payment Certificate stating:

(a) the amount which, in the opinion of the Engineer, is finally due under the Contract or otherwise, and

(b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled other than under Clause 8.12 and 8.13, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

15.11 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing arising out of or in connection with the Contract or execution of the Works, unless the Contractor shall have included a claim in respect thereof in his Final Statement and (except in respect of matters or things arising after the issue of the Taking-Over Certificate in respect of the whole of the Works) in the Statement at Completion referred to in Sub-Clause 15.7.

15.12 Time for Payment

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other term of the Contract, shall, subject to Clause 8.12 and 8.13, be paid by the Employer to the Contractor within 28 days after such Interim Payment Certificate has been delivered to the Employer, or, in the case of the Final Payment Certificate referred to in Sub-Clause 15.8, within 30 days, after such Final Payment Certificate has been delivered to the Employer. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor interest at the rate stated in the SCC upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor's entitlement under Clause 18 or otherwise.

15.13 Advance Payment

The Contractor shall be eligible to receive an advance payment for an amount stated in the SCC. Payment of such advance amount will be due under certification by the Engineer after (a) execution of the Form of Agreement by the parties hereto; (b) provision by the Contractor of the performance security in accordance with Sub-Clause 4.4; and (c) provision by the Contractor of an unconditional bank guarantee for equal amount in a form and by a bank acceptable to the Employer. Such bank guarantee shall remain effective until the advance payment has been repaid pursuant to the paragraph below, but the amount thereof shall be progressively reduced by the amount repaid by the Contractor as indicated in Interim Payment Certificates issued in accordance with this clause.

The advance payment shall be repaid through percentage deductions from the interim payments certified by the Engineer in accordance with this clause. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all interim payments certified to the Contractor has reached the percentage of the Contract Price stipulated in the SCC less Provisional Sums, if any, and shall be made at the rate stated in the SCC of the amount of all Interim Payment Certificates until such time as the advance payment has been repaid; always provided that the advance payment shall be completely repaid prior to the time when 80 percent of the Contract Price has been certified for payment.

15.14 Price Adjustment

Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the SCC. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

Pc = Ac + Bc Lmc/Loc + Cc Imc/Ioc Where:

Pc is the adjustment factor for the portion of the Contract Price payable in a specific currency "c".

Ac, Bc and Cc are coefficients specified in the SCC, representing: Ac the nonadjustable portion; Bc the adjustable portion relative to labor costs and Cc the adjustable portion for other inputs, of the Contract Price payable in that specific currency "c"; and

Lmc is the index prevailing at the first day of the month of the corresponding invoice date and Loc is the index prevailing 28 days before Bid opening for labor; both in the specific currency "c".

Imc is the index prevailing at the first day of the month of the corresponding invoice date and Ioc is the index prevailing 28 days before Bid opening for other inputs payable; both in the specific currency "c".

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor Zo/Zn will be applied to the respective component factor of pn for the formula of the relevant currency. Zo is the number of units of currency of the country of the index, equivalent to one unit of the currency payment on the date of the base index, and Zn is the corresponding number of such currency units on the date of the current index.

15.14.1 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

15.14.2 DISCREPANCIES AND ADJUSTMENT OF ERRORS

- 15.14.2.1 Detailed drawings shall be followed in preference to small-scale drawings and figured dimensions in preference to scaled dimensions. The case of discrepancy between the Schedule of Quantities and prices, the Specifications and/ or the drawings, the following order of precedence shall be observed: -
 - (a) Description in the Schedule of Quantities and Prices.
 - (b) Relevant Specifications and Special Conditions, if any.
 - (c) Drawings.
 - (d) Indian Standards Specifications of BIS.
- 15.14.2.2 The contractor shall study and compare the drawings, specifications and other relevant information given to him by the Engineer-in-Charge and shall report in writing to the Engineer-in-Charge any discrepancy and inconsistency which he notes. The decision of the Engineer-in-Charge regarding the correct intent and meaning of the drawings and specifications shall be final and binding.

15.14.2.3 Any error in description, quantity or price in Schedule of Quantities and Prices or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the work(s) comprised therein according to drawings and specifications or from any of his obligations under the contract.

If on check, there is difference in the amount worked out by contractor in the schedule of quantities and prices and General summary the same shall be adjusted in accordance with the following rules:

- 15.14.2.4 In the event of error/discrepancy occurring in the rates written in figures and words, then the rate which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figures or in words, then the rate quoted by the contractor in words shall be taken as correct. When the rate quoted by the contractor in figures and words tally, but the amount is not worked out correctly, the rate quoted by the contractor will, unless or otherwise proved, be taken as correct.
 - (a) All errors in totalling in the amount column and in carrying forward totals shall be corrected.
 - (b) The totals of various sections of schedule of quantities and price amended shall be carried over to the General Summary and the tendered sum amended accordingly. The tendered sum so altered shall, for the purpose of tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer. Any rounding off of quantities or in sections of schedule of quantities and prices or in General summary by the tenderer shall be ignored.

16 Claims, Provisional sum and settlement of disputes

16.1 **Claims**

16.1.1 **Notice of Claims**

Notwithstanding any other provision of the Contract, if the Contractor intends to claim any additional payment pursuant to any Clause of these Conditions or otherwise, he shall give notice of his intention to the Engineer, with a copy to the Employer, within 28 days after the event giving rise to the claim has first arisen.

16.1.2 Contemporary Records

Upon the happening of the event referred to in Sub-Clause 16.1.1, the Contractor shall keep such contemporary records as may reasonably be necessary to support any claim he may subsequently wish to make. Without necessarily admitting the Employer's liability, the Engineer shall, on receipt of a notice under Sub-Clause 16.1.1, inspect such contemporary records and may instruct the Contractor to keep any further contemporary records as are reasonable and may be material to the claim of which notice has been given. The Contractor shall permit the Engineer to inspect all records kept pursuant to this Sub-Clause and shall supply him with copies thereof as and when the Engineer so instructs.

16.1.3 Substantiation of Claims

Within 28 days, or such other reasonable time as may be agreed by the Engineer, of giving notice under Sub-Clause 16.1.1, the Contractor shall send to the Engineer an account giving detailed particulars of the amount claimed and the grounds upon which the claim is based. Where the event giving rise to the claim has a continuing effect, such account shall be considered to be an interim account and the Contractor shall, at such intervals as the Engineer may reasonably require, send further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. In cases where interim accounts are sent to the Engineer, the Contractor shall send a final account within 28 days of the end of the effects resulting from the event. The Contractor shall, if required by the Engineer so to do, copy to the Employer all accounts sent to the Engineer pursuant to this Sub-Clause.

16.1.4 Failure to Comply

If the Contractor fails to comply with any of the provisions of this Clause in respect of any claim which he seeks to make, his entitlement to payment in respect thereof shall not exceed such amount as the Engineer or any arbitrator or arbitrators appointed pursuant to Sub-Clause 16.3.3 assessing the claim considers to be verified by contemporary records (whether or not such records were brought to the Engineer's notice as required under Sub-Clauses 16.1.2 and 16.1.3).

16.1.5 Payment of Claims

The Contractor shall be entitled to have included in any interim payment certified by the Engineer pursuant to Clause 15 such amount in respect of any claim as the Engineer, after due consultation with the Employer and the Contractor, may consider due to the Contractor provided that the Contractor has supplied sufficient particulars to enable the Engineer to determine the amount due. If such particulars are insufficient to substantiate the whole of the claim, the Contractor shall be entitled to payment in respect of such part of the claim as such particulars may substantiate to the satisfaction of the Engineer. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

16.2 Provisional Sums

16.2.1 Definition of "Provisional Sum"

"Provisional Sum" means a sum included in the Contract and so designated in the Bill of Quantities for the execution of any part of the Works or for the supply of goods, materials, Plant or services, or for contingencies, which sum may be used, in whole or in part, or not at all, on the instructions of the Engineer. The Contractor shall be entitled to only such amounts in respect of the work, supply or contingencies to which such Provisional Sums relate as the Engineer shall determine in accordance with this Clause. The Engineer shall notify the Contractor of any determination made under this Sub-Clause, with a copy to the Employer.

16.2.2 Use of Provisional Sums

In respect of every Provisional Sum the Engineer shall have authority to issue instructions for the execution of work or for the supply of goods, materials, Plant, Labour or services by:

- (a) the Contractor, in which case the Contractor shall be entitled to an amount equal to the value thereof determined in accordance with Clause 13.3, 13.4 and 13.5, and
- (b) a nominated Subcontractor, as hereinafter defined, in which case the sum to be paid to the Contractor therefor shall be determined and paid in accordance with Sub-Clause 5.4.4.

16.2.3 Production of Vouchers

The Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of Provisional Sums, except where work is valued in accordance with rates or prices set out in the Tender.

16.3 Settlement of Disputes

16.3.1 Engineer's Decision

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 expulsion 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, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the 30th 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 30th 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 30 days expired, 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 Sub-Clause 16.3.4, 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 day specified herein above, the said decision shall become final and binding upon the Employer and the Contractor.

16.3.2 Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with Sub-Clause 16.3.1, the parties shall attempt to settle such dispute amicably before the commencement of arbitration. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after the 28th day after the day on which notice of intention to commence arbitration of such dispute was given, even if no attempt at amicable settlement thereof has been made.

16.3.3 Arbitration

Any dispute in respect of which:

- (a) the decision, if any, of the Engineer has not become final and binding pursuant to Sub-Clause 16.3.1, and
- (b) amicable settlement has not been reached within the period stated in Sub-Clause 16.3.2, shall be referred for arbitration in the manner provided as under and to the sole arbitrator appointed as follows:
 - (i) Either of the parties may give to the other notice in writing of the existence of such question of dispute or difference with a copy to the Engineer within the time specified in clause 16.3.1.
 - (ii) Within twenty-eight (28) days of receipts of such notice from either party the Engineer in Consultation with the Employer shall send to the contractor a panel of three persons and the contractor within twenty-one (21) days of receipt of such panel communicate to the Engineer and Employer the name of one of the person from such panel and such person shall then be appointed a sole arbitrator by the Employer. However, the arbitrator so appointed shall not be an officer or the employee of the Employer or Engineer.
 - (iii) Provided that if the contractor fails to communicate the selection of a name out of the panel so forwarded to him within the specified time, Employer shall without delay select one person from the aforesaid panel and appoint him as the sole arbitrator.
 - (iv) The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, then the Employer shall appoint another person to act as sole arbitrator, such person shall be entitled to proceed with the reference from the stage at which the predecessor left it.
 - (v) The award of the arbitrator shall be final and binding. The arbitrator shall decide in what proportion the arbitrator's fees, as well as the cost of Arbitration proceeding shall be borne by either party.
 - (vi) The arbitrator with the consent of the parties can enlarge the time, from time to time to make and publish his award.
 - (vii) A notice of the existence in question dispute or difference in connection with the contract unless served by either party within 30 days after the issue of Defects Liability Certificate, failing which all rights and claim under this contract shall be deemed to have been waived and thus forfeited and absolutely barred.
 - (viii) The arbitrator shall give reasons for the award for each item.
 - (ix) The work under this contract shall continue during arbitration proceedings and no valid payments due from or payment by the Employer shall be withheld on account of such proceedings except to the extent, which may be in dispute.
 - (x) The Arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act, 1996 read with the Arbitration & Conciliation (Amendment) Act, 2015 or any statutory modifications or re-enactment thereof and the rules made thereunder for being inforce shall apply to the arbitration proceeding under this clause.

The Arbitrator shall have the power to enlarge the term to rate the award with the consent of the parties provided always that the commencement or continuation of the arbitration proceeding shall not result in cessation or suspension of any of other rights and obligations of the parties of any payments due to them hereunder.

The venue of the arbitration proceedings shall be at Noida. It is further clarified that both the parties to this agreement hereby undertake not to have recourse to civil court to solve any of their dispute whatsoever, arising out of this agreement except through arbitration.

In case of contract with another Public Sector Undertaking, following Arbitration Clause shall apply: "In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs) / Port Trusts inter se and also between CPSEs and Government Departments / Organizations (excluding disputes concerning Railways, Income Tax & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22nd May 2018.

16.3.4 Laws governing the Contract

- (a) The laws of India shall govern this contract.
- (b) Irrespective of the place of Works, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the Letter of Acceptance has been issued.
- (c) Courts of the place from where the Letter of Award of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of contract.

16.3.5 Failure to Comply with Engineer's Decision

Where neither the Employer nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated in Sub-Clause 16.3.1 and the related decision has become final and binding, either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to arbitration in accordance with Sub-Clause 16.3.2. The provisions of Sub-Clauses 16.3.1 and 16.3.2 shall not apply to any such reference.

16.3.6 INSTRUCTIONS AND NOTICE

- a) Except as otherwise provided in this contract, all notices to be given on behalf of the Authority and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.
- b) All instructions, notices and communications etc. under the contract shall be given in writing and any such oral orders / instructions given shall be confirmed in writing and no such communication which is not given or confirmed in writing shall be valid.
- c) All instructions, notices and communications shall be deemed to have been duly given or sent to the contractor, if delivered to the contractor, his authorized agent, or left at, or posted to the address given by the contractor or his authorized agent or to the last known place of abode or business of the contractor or his agent of services by post shall be deemed to have

- been served on the date when in the ordinary course of post these would have been delivered to him and in other cases on the day on which the same were so delivered or left.
- d) The Engineer-in-Charge shall communicate or confirm the instructions to the contractor in respect of the execution of work through a "Site Order Book "maintained in the office of the Engineer-in-Charge and the contractor or his authorized representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Contractor, he shall be furnished a certified true copy of such instruction(s).
- e) The "Hindrance Register" shall be maintained at the site of work, where any hindrance which comes to the notice of the representative of the Engineer-in-Charge shall be recorded and immediately a report will be made to the Engineer-in-Charge within a week. The Engineer-in-Charge shall review the Hindrance Register at least once in a month.

16.3.7 AUTHORITY AND THEIR STAFF NOT TO BE PERSONALLY LIABLE

Nothing in these presents shall be deemed to or shall impose any personal liability of the Authority or their staff.

17 When the contract can be determined

- 17.1 Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:
 - (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
 - (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer.
 - (iii) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and docs not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
 - (iv) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and docs not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer- in-Charge.
 - (v) If the contractor shall offer or give or agree to give to any person in IWAI service. or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of contract.

- (vi) If the contractor shall obtain a contract with IWAI as a result of wrong tendering or other non-Bonafede methods of competitive tendering or commits breach of integrity pact.
- (vii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjust insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being enforce for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- (viii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (ix) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (x) If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.
- When the contractor has made himself liable for action under any of the cases aforesaid, the EIC on behalf of the IWAI with the approval of the competent authority shall have powers:
 - (i) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the EIC shall be conclusive evidence). Upon such determination, the EMD, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the IWAI.
 - (ii) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof: as shall be un-executed out of his hand and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.
 - the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer in-Charge has

certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

18 Termination by the employer

18.1 Default of Contractor

If the Contractor is deemed by law unable to pay his debts as they fall due, or enters into voluntary or involuntary bankruptcy, liquidation or dissolution (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or becomes insolvent, or makes an arrangement with or assignment in favour of, his creditors, or agrees to carry out the Contract under a committee of inspection of his creditors, or if a receiver, administrator, trustee or liquidator is appointed over any substantial part of his assets, or if, under any law or regulation relating to reorganization, arrangement or readjustment of debts, proceedings are commenced against the Contractor or resolutions passed in connection with dissolution or liquidation or if any steps are taken to enforce any security interest over a substantial part of the assets of the Contractor, or if any act is done or event occurs with respect to the Contractor or his assets which, under any applicable law has a substantially similar effect to any of the foregoing acts or events, or if the Contractor has contravened Sub-Clause 5.1, or has an execution levied on his goods, or if the Engineer certifies to the Employer, with a copy to the Contractor, that, in his opinion, the Contractor:

- (a) has repudiated the Contract,
- **(b)** without reasonable excuse has failed
 - (i) to commence the Works in accordance with Sub-Clause 8.1 or
 - (ii) to proceed with the Works, or any Section thereof, within 28 days after receiving notice pursuant to Sub-Clause 8.11,
- has failed to comply with a notice issued pursuant to Sub-Clause 7.9 or an instruction issued pursuant to Sub-Clause 7.13 within 28 days after having received it,
- (d) despite previous warning from the Engineer, in writing, is otherwise persistently or flagrantly neglecting to comply with any of his obligations under the Contract, or
- (e) has contravened Sub-Clause 5.2,

then the Employer may, after giving 14 days' notice to the Contractor, enter upon the Site and expel the Contractor there from without thereby violating the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or the Engineer by the Contract, and may himself complete the Works or may employ any other contractor to complete the Works. The Employer or such other contractor may use for such completion so much of the Contractor's Equipment, Plant, Temporary Works, and materials, which have been deemed to be reserved exclusively for the execution of the Works, under the provisions of the Contract, as he or they may think proper, and the Employer may, at any time, sell any of the said Contractor's Equipment, Temporary Works, and unused Plant and materials, and apply the proceeds of sale in or toward the satisfaction of any sums due or that may become due to him from the Contractor under the Contract.

18.1.1 INABILITY TO PERFORM CONTRACT

Should the Contractor's preparation for the commencement of the work, or any portion of it or his subsequent rate of progress may be, from any cause whatever, so slow that in the opinion of the inspector, which shall be conclusive, the contractor will be unable to complete the work or any portion thereof as agreed upon, or should he not have the work ready for delivery in conformity with the contract should he neglect to comply with any directions given to him by the inspector or in any respect fail to perform the contract, the owner shall have power to declare the contract at an end, in which case the contractor shall be liable for any expense, loss or damage which the owner may incur or sustain by reason, of or in connection with contractor's default.

18.1.2 TERMINATION OF CONTRACT ON DEATH

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies, or if the Contractor is a partnership concern and one of the partners dies, then, unless the Engineer-in-Charge is satisfied that the legal representatives of the individual contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners are capable of carrying out and completing the contract, the Engineer-in-Charge shall be entitled to terminate the Contract as to its incomplete part without the Authority being in anyway liable to payment of any compensation whatsoever on any account to the estate of the deceased Contractor and/or to the surviving partners of the Contractor's firm on account of termination of the Contract. The decision of the Engineer-in-Charge that the legal representatives of the deceased contractor or the surviving partners of the Contractor's firm cannot carry out and complete the works under the contract shall be final and binding on the parties. In the event of such termination, the Authority shall not hold the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable for damages for not completing the contract. Provided that the power of the Engineer-in-Charge of such termination of contract shall be without prejudice to any other right or remedy which shall have accrued or shall accrue to him under the contract.

18.2 Valuation at Date of Expulsion

The Engineer shall, as soon as may be practicable after any such entry and expulsion by the Employer, fix and determine ex parte, or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute, and shall certify:

- (a) what amount (if any) had, at the time of such entry and expulsion, been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the Contract, and
- (b) the value of any of the said unused or partially used materials, any Contractor's Equipment and any Temporary Works.

18.3 Payment after Expulsion / Termination

If the Employer shall enter and expel the Contractor under this Clause, the EMD, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Authority. Further, the Employer shall not be liable to pay to the Contractor any further amount (including damages) in respect of the Contract until the expiration of the Defects Liability Period and thereafter until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any) and all other expenses incurred by the Employer have been ascertained and the amount thereof

certified by the Engineer. The Contractor shall then be entitled to receive only such sum (if any) as the Engineer may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount exceeds the sum which would have been payable to the Contractor on due completion by him, then the Contractor shall, upon demand, pay to the Employer the amount of such excess and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly.

18.4 Assignment of Benefit of Agreement

Unless prohibited by law, the Contractor shall, if so instructed by the Engineer within 14 days of such entry and expulsion referred to in Sub-Clause 18.1, assign to the Employer the benefit of any agreement for the supply of any goods materials or services and/or for the execution of any work for the purposes of the Contract, which the Contractor may have entered into.

18.5 Corrupt or Fraudulent Practices

If in the judgment of the Employer, the Contractor has engaged in corrupt or fraudulent practices, in competing for or in executing the Contract, then the Employer may, after having given 14 days' notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of Clause 18 shall apply as if such expulsion had been made under Sub-Clause 18.1.

"Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official, Employer, Engineer or their representatives in the procurement process or in Contract execution.

"Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Borrower, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

18.6 Urgent Remedial Work

If, by reason of any accident, or failure, or other event occurring to, in, or in connection with the Works, or any part thereof, either during the execution of the Works, or during the Defects Liability Period, any remedial or other work is, in the opinion of the Engineer, urgently necessary for the safety of the Works and the Contractor is unable or unwilling at once to do such work, the Employer shall be entitled to employ and pay other persons to carry out such work as the Engineer may consider necessary. If the work or repair so done by the Employer is work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof.

18.7 FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

If at any time after acceptance of the tender/Letter of Acceptance (LoA) the Competent Authority decides to abandon or reduce the scope of work may be foreclosed at any stage, without assigning any reasons whatsoever. Consultant does not reserve any right to claim compensation whatsoever for foreclosure of consultancy contract by Employer. In case of foreclosure, percentage payment due up to the completed stage will be made as indicated in the Financial Proposal. In case assignment forecloses in the middle of any indicated stage as per financial proposal, pro-rata payment shall be made for the completed services as agreed mutually.

18.8 STANDARD BREAK CLAUSE

The owner shall in addition to his power under other clauses to determine this contract have power to terminate his liability there under at any time by giving three months (or such shorter period as may be mutually agreed) notice in writing to the contractor of the owner's desire to do so and upon the expiration of the notice the contract shall be determined without prejudice to the rights of the parties accrued to the date of determination but subject to the operation of the following provisions of this clause.

- **2**. In the event of this, notice being given the Owner shall be entitled to exercise as soon as may be reasonably practicable within that period the following powers or any of them:
- a) To direct the Contract or to complete in accordance with the contract all or any articles, parts of such articles or components in course of manufacture at the expiration of the notice and to deliver the same at such rate of delivery which may be mutually agreed or in detail of agreement at the contract rate. All articles delivered by the contractor in accordance with such directions and accepted shall be paid at a fair and reasonable price assessed on the basis of the contract price when it exists.
- **b)** To require the contractor on receipt of the notice of termination.
 - i) immediately to take such steps as will ensure that the production rate of the articles specified in the schedule and parts thereof is reduced as rapidly as possible.
 - ii) as far as possible consistent with (i) above to concentrate work on the completion of parts already in partly manufactured state; and
 - iii) to terminate on the best possible terms such orders for materials and parts bought out in a partly manufactured or wholly manufactured state as have not been completed, observing in this connection any directions given under this paragraphs (a) and (b) (i) and (ii) above as far as this may be possible.
- 3. In the event on such notice being given provided the contractor has reasonably performed all the provisions of the contract binding upon him down to the date of this notice.
- a) The Owner shall take over from the contractor at a fair and reasonable price (assessed on the basis of the contract price of the completed articles), all unused, undamaged and acceptable materials, bought out components and articles in the course of manufacture in possession of the Contractor at the expiration of the notice and properly provided by or supplied to the contractor for the performance of this contract except such materials, bought out components are supplied to the contractor through the intervention of the owner or on his behalf:-

- (i) the said fair and reasonable price shall be assessed on the basis of the cost price of such materials and/or components, and
- (ii) If the contractor elects to retain any materials, bought-out components and articles as in this clause provided, he shall settle all claims of supplier in respect of the materials and/or components supplied to him as aforesaid including any claims to any extra charge (if the original stipulated terms and been concessional) and shall keep the owner indemnified against the same:
- (b) The Contractor shall deliver in accordance with the direction of the Owner all such unused, undamaged and acceptable materials, bought out components and articles in course of the manufacture (except as aforesaid) taken over by or previously belonging to the Owner and the Owner shall pay to the Contractor fair and reasonable handling and delivery charges therefore,
- (c) The Owner shall indemnify the contractor against the commitments, liabilities or expenditure which in the opinion of the Owner are reasonable and properly chargeable by the contractor in connection with the contract to the extent to which the Owner is satisfied that such commitments, liabilities or expenditure would otherwise represent and unavoidable loss by the contractor by reason of the termination of the contract. Provided that in the event of the contractor not having observed any direction given to him under the sub clause (2) hereof the Owner shall not be liable under the sub clause to pay any sums in excess of those for which the Owner would have been able had the contractor observed that direction.
- 4. If in any particular case exceptional hardship to the contractor should arise from the operation of this clause it shall be open to the Contractor to refer the circumstances to the Chairperson who on being satisfied that such hardship exists shall make such allowance if any as in his opinion is reasonable.
- 5. The Owner shall not in any case be liable to pay under the provisions of this clause any such sum which when taken together with any sums paid or due to becoming due to the contractor under this contract shall exceed the total price of the article specified in the schedule payable under this Contract.
- The Contractor shall in any substantial order or sub-contract planned or made by him in connection with or for the purpose of this contract take power wherever possible by securing the acceptance of the sub-contractor to terminate such order or subcontract in the event of the termination of this contract by the Owner of this clause and save only that: -
 - (a) The name of the contractor shall be substituted for the owner throughout except in subclause 3 (c) where it occurs for the second and third times;
 - (b) The period of the notice of termination shall be two months or such shorter period as may be mutually agreed upon). Substantial order or sublet contracts of or over Rs. 1,00,000 (Rupees One lakh) in value.

19 Termination by Contractor

19.1 Default of Employer

In the event of the Employer:

- (a) Failing to pay to the Contractor, the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in Sub-Clause 15.12, within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract,
- **(b)** Interfering with or obstructing or refusing any required approval to the issue of any such certificate,
- (c) becoming bankrupt or, being a company, going into liquidation, other than for the purpose of a scheme of reconstruction or amalgamation, or
- (d) giving notice to the Contractor that for unforeseen economic reasons it is impossible for him to continue to meet his contractual obligations,

the Contractor shall be entitled to terminate his employment under the Contract by giving notice to the Employer, with a copy to the Engineer. Such termination shall take effect 14 days after the giving of the notice.

19.2 Removal of Contractor's Equipment

Upon the expiry of the 14 days' notice referred to in Sub-Clause 19.1, the Contractor shall, notwithstanding the provisions of Sub-Clause 4.36.1, with all reasonable despatch, remove from the Site all Contractor's Equipment brought by him thereon.

19.3 Payment on Termination

In the event of such termination, the Employer shall be under the same obligations to the Contractor in regard to payment as if the Contract had been terminated under the provisions of Clause 14.

If the termination takes place due to lack of performance / negligence in the part of the Contractor, IWAI shall have reasonable authority to get the works completed on risks & costs of the terminated Contractor through engagement of third party.

19.4 Contractor's Entitlement to Suspend Work

Without prejudice to the Contractor's entitlement to interest under Sub-Clause 15.12 and to terminate under Sub-Clause 19.1, 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 Sub-Clause 15.12 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, suspend work or reduce the rate of work. If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub-Clause and thereby suffers delay or incurs costs the Engineer shall, after due consultation with the Employer and the Contractor, determine:

- (a) Any extension of time to which the Contractor is entitled under sub clause 8.7, 8.7 and 8.8 of clause 8, and
- (b) The amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

19.5 Resumption of Work

Where the Contractor suspends work or reduces the rate of work having given notice in accordance with Sub-Clause 19.4, and the Employer subsequently pays the amount due, including interest pursuant to Sub-Clause 15.12, the Contractor's entitlement under Sub-Clause 19.1 shall, if notice of termination has not been given, lapse and the Contractor shall resume normal working as soon as is reasonably possible.

Whenever the Works is resumed after suspension, the Engineer and the Contractor shall jointly examine the Works and the Plant and Materials affected by the suspension and the Contractor shall prepare a report indicating the physical status and major adverse effects, if any, the Works under suspension has suffered during the period of suspension and furnish same to the Engineer and Employer.

20 Design and Drawings

20.1 Custody and Supply of Drawings and Documents

The approved drawings shall remain in the custody of the Engineer, but two copies thereof shall be provided to the Contractor free of charge. The Contractor shall make at his own cost any further copies required by him. Unless it is strictly necessary for the purposes of the Contract, the Drawings, Specification and other documents provided by the Employer or the Engineer shall not, without the consent of the Engineer, be used or communicated to a third party by the Contractor. Upon issue of the Defects Liability Certificate, the Contractor shall return to the Engineer all Drawings, Specification and other documents provided under the Contract.

The Contractor shall supply to the Engineer four copies of all Drawings, Specification and other documents submitted by the Contractor and approved by the Engineer in accordance with Clause 20.6, 20.7 and 20.8, together with a reproducible copy of any material which cannot be reproduced to an equal standard by photocopying. In addition, the Contractor shall supply such reasonable number of further copies of such Drawings, Specification and other documents as the Engineer may request in writing.

20.2 One Copy of Drawings to be kept on Site

One copy of the Drawings, provided to or supplied by the Contractor as aforesaid, shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorised by the Engineer in writing.

20.3 Disruption of Progress

The Contractor shall give notice to the Engineer, with a copy to the Employer, whenever planning or execution of the Works is likely to be delayed or disrupted unless any further drawing or instruction is issued by the Engineer within a reasonable time. The notice shall include details of the drawing or instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late. This shall not be applicable in the case of permanent works to be designed and engineered by the contractor, except with regard to its approval by the Engineer, if specified.

20.4 Delays and Cost of Delay of Drawings

If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction for which notice has been given by the Contractor in accordance with Sub Clause 20.3, the Contractor suffers delay and/or incurs costs, then the Engineer shall, after due consultation with the Employer and the Contractor, determine

(a) any extension of time to which the Contractor is entitled under sub clause 8.6, 8.7 and 8.8

20.5 Failure by Contractor to Submit Drawings

If the failure or inability of the Engineer to issue any drawings or instructions is caused in whole or in part by the failure of the Contractor to submit Design, Drawings, Specification or other documents which he is required to submit under the Contract, the Engineer shall take such failure by the Contractor into account when making his determination pursuant to Sub-Clause 20.4.

20.6 Supplementary Drawings and Instructions

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall carry out and be bound by the same.

20.7 Permanent Works Designed by Contractor

Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall submit to the Engineer, for approval:

- such drawings, specifications, calculations and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of that design, and
- (b) operation and maintenance manuals together with drawings of the Permanent Works as completed, in sufficient detail to enable the Employer to operate, maintain, dismantle, reassemble and adjust the Permanent Works incorporating that design. The Works shall not be considered to be completed for the purposes of taking over until such operation and maintenance manuals, together with drawings on completion, have been submitted to and approved by the Engineer.

20.8 Responsibility Unaffected by Approval

Approval by the Engineer, in accordance with Sub-Clause 20.7, shall not relieve the Contractor of any of his responsibilities under the Contract.

21 Insurance

All equipment must have valid Insurance from any reputed India Insurance company. All persons deployed for the work shall be insured by the Contractor at his cost and documentary evidence should be provided before commencement of the work. IWAI shall not be responsible in any manner for any accident to the personnel engaged by the Contractor during the operation of the equipment or otherwise.

21.1 Insurance of Works

The Contractor is required to take Contractor's All Risk Policy or erection all risk policy (as the case may be) from an approved insurance company in the joint name with the Employer and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss of damage from whatever cause arising

other than excepted risks for which he is responsible under the terms of the contract and in such manner that the Employer and the contractor are covered during the period of construction of works and/or also covered during the period of defect liability for loss or damage.

21.1.1 Insurance of Contractor's Equipment, Plant and materials

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 2.2, 4.16, 4.17 and 4.18, insure:

- a) the Materials and Plant/Equipment for incorporation therein in the Works, to their full replacement cost at Site. Such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred,
- b) an additional sum of 10 per cent of such replacement cost, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature. Such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred and
- c) the Contractor's Equipment and other things brought onto the Site by the Contractor, for a, sum sufficient to provide for their replacement at the Site.

21.1.2 **Scope of Cover**

The insurance in paragraphs (a) and (b) of Sub-Clause 21.1.1 shall be in the name of the Contractor and shall cover:

- a) the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Sub-Clause 20.4, from the first working day after the Commencement Date until the date of issue of the relevant Completion certificate in respect of the Works or any Section or part thereof as the case may be, and
- b) the Contractor for his liability:
 - (i) during the Contract period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and
 - (ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 11.
- c) It shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.

21.1.3 Responsibility for Amounts not recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their responsibilities under Clause 2.2, 4.16, 4.17 and 4.18.

21.1.4 Exclusions

There shall be no obligation for the insurances in Sub-Clause 21.1.1 to include loss or damage caused by risks listed under sub clause 2.2.

21.2 Insurance under Workmen Compensation Act

Contractor is required to take insurance cover under the Workman Compensation Act, 1923 as amended from time to time from an approved insurance company and pay premium charges thereof. Wherever required by the Employer the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

21.3 Third Party Insurance

The Contractor is required to take third party insurance cover for an amount of 5% (five percent) of contract value from an approved insurance company for insurance against any damage, injury or loss which may occur to any person or property including that of the Employer, arising out of the execution of the works or temporary works. Wherever required by the Employer the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums. In case of failure of the contractor to obtain contractors all risk policy, insurance under workman compensation act and third-party insurance as described above within one month from the date of commencement of work, running account payments of the contractor shall be withheld till such time the aforesaid insurance covers are obtained by the contractor. If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of the contract, then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company could offer, such an insurance is ought to be done after the Employers approval, by or through the subsidiary of the General Insurance Company.

21.4 The Contractor shall at all times indemnify the Employer against all claims, damages or compensation under the provision of Payment of Wages Act-1936, Minimum Wages Act-1948, Employer's liability Act-1938, the Workmen's Compensation Act-1947, Industrial Disputes Act-1947 and Maternity Benefit Act-1961 or any modifications thereof or any other law in force or as consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the contractor or not, against all costs, charges and expenses of any suit, action or proceedings arising out of such incident or injury and against all sum or sums which may with the consent of the contractor be paid to compromise or compound any such claim. Without limiting his obligations and liabilities as above provided, the contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act 1923 or any modification thereof or any other law relating thereto."

21.5 Damage to Persons and Property

The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the Employer against all losses and claims in respect of:

- (a) death of or injury to any person, or
- (b) loss of or damage to any property (other than the Works), which may arise out of or in consequence of the execution and completion of the Works and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Sub-Clause 21.6.

21.6 Exceptions

The "exceptions" referred to in Sub-Clause 21.5 are:

- (a) the permanent use or occupation of land by the Works, or any part thereof,
- (b) the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land,
- (c) damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract, and
- (d) death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, his agents, servants or other contractors, not being employed by the Contractor, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, where the injury or damage was contributed to by the Contractor, his servants or agents, such part of the said injury or damage as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the injury or damage.

21.7 Indemnity by Employer

The Employer shall indemnify the Contractor against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the exceptions defined in Sub-Clause 21.6.

21.8 Cross Liabilities

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured.

21.9 Accident or Injury to Workmen

The Employer shall not be liable for in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

21.9.1 **Insurance Against Accident to Workmen**

The Contractor shall insure against such liability and shall continue such insurance during the whole of the currency of Contract in respect of all and any persons as are employed by him on the Works. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

21.10 Evidence and Terms of Insurances

The Contractor shall provide evidence to the Employer as soon as practicable after the respective insurances have been taken out but, in any case, prior to the start of work at the Site that the

insurances required under the Contract have been affected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Award. The Contractor shall affect all insurances for which he is responsible with insurers and in terms approved by the Employer.

21.11 Adequacy of Insurances

The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.

21.12 Remedy on Contractor's Failure to Insure

If the Contractor fails to effect and keep in force any of the insurances required under the Contract, or fails to provide the policies to the Employer within the period required by Sub-Clause 21.10, then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

21.13 Compliance with Policy Conditions

In the event that the Contractor or the Employer fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, each shall indemnify the other against all losses and claims arising from such failure.

21.14 Source of Insurance

The Contractor shall place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21) with insurers from India.

Release from Performance

Payment in Event of Release from Performance

If any circumstance outside the control of both parties arises after the issue of the LoA which renders it impossible or unlawful for either or both parties to fulfil his or their contractual obligations, or under the law governing the Contract the parties are released from further performance, then the parties shall be discharged from the Contract, except as to their rights under this Clause and Clause 16.3 and without prejudice to the rights of either party in respect of any antecedent breach of the Contract, and the sum payable by the Employer to the Contractor in respect of the work executed shall be the same as that which would have been payable under Clause 14 if the Contract had been terminated under the provisions of Clause 14.

23 Notices

23.1 Notice to Contractor

All certificates, notices or instructions to be given to the Contractor by the Employer or the Engineer under the terms of the Contract shall be sent by post, cable, e-mail or facsimile transmission to or left at the Contractor's principal place of business or such other address as the Contractor shall nominate for that purpose.

23.2 Notice to Employer and Engineer

Any notice to be given to the Employer or to the Engineer under the terms of the Contract shall be sent by post, cable, e-mail or facsimile transmission to or left at the respective addresses nominated for that purpose.

23.3 Change of Address

Either party may change a nominated address to another address in the country where the Works are being executed or in the country of Employer by prior notice to the other party, with a copy to the Engineer, and the Engineer may do so by prior notice to both parties.

24 Changes in Cost and Legislation

24.1 Increase or Decrease of Cost

There shall be no addition or deduction from the Contract Price in respect of rise or fall in the cost of labour and/or materials or any other matter affecting the cost of the execution of the Works as far as the items of Works covered by criteria is concerned.

However, addition or deduction from the Contract Price any sums in respect of rise or fall in the cost of POL (applicable if defined in SCC) may be determined.

24.2 Subsequent Legislation

If, after the date 28 days prior to the latest date for submission of tenders for the Contract, there occurs in the country in which the Works are being or are to be executed changes to any National or State Statute, Ordinance, Decree or other Law or any regulation or bye-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation or bye-law which causes additional or reduced cost to the Contractor, other than under Sub-Clause 24.1, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be added to or deducted from the Contract Price-and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

When the Contract can be determined

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

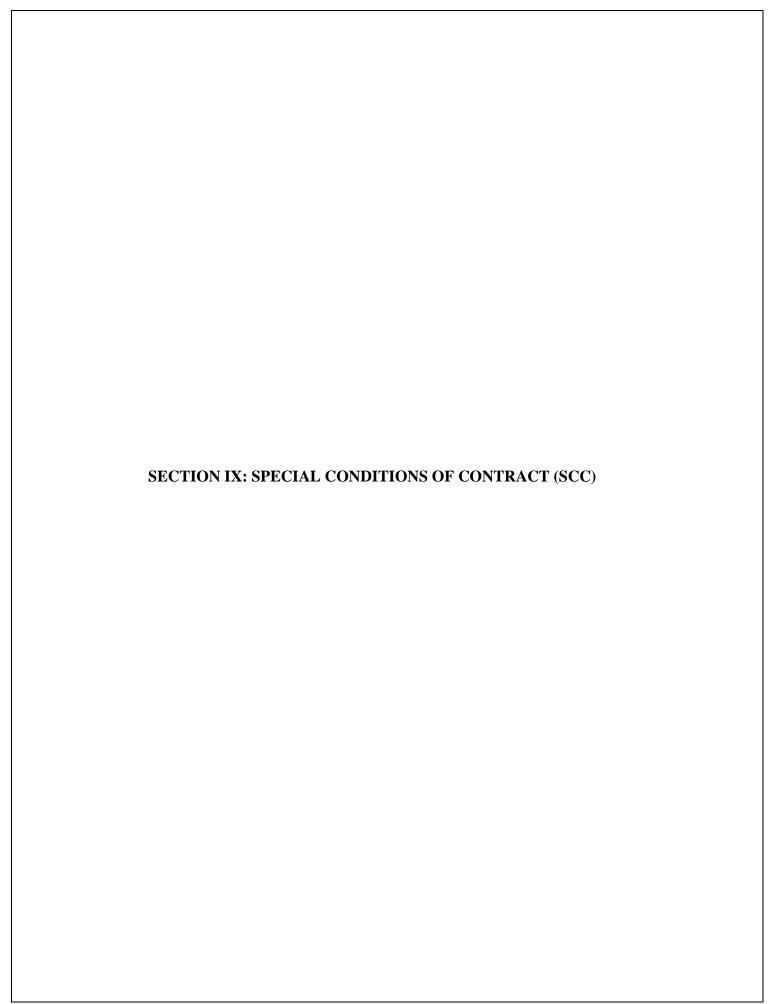
i. If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.

- ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- iii. If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and docs not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- iv. If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and docs not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer- in-Charge.
- v. If the contractor shall offer or give or agree to give to any person in IWAI service. or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of contract.
- vi. If the contractor shall obtain a contract with IWAI as a result of wrong tendering or other non-bonfire methods of competitive tendering or commits breach of integrity pact.
- vii. If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjust insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being enforce for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- viii. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- ix. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- x. If the contractor assigns, transfers, sublets (engagement of labour on a piecework basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer- in-Charge on behalf of the IWAI with the approval of the competent authority shall have powers:

- a) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the IWAI.
- xi. After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof: as shall be un-executed out of his hand and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-- in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.



SECTION IX: SPECIAL CONDITIONS OF CONTRACT (SCC)

1. General

- 1.1. SCC shall be read in conjunction with the GCC, specifications, ToR, Drawings and any other documents forming part of this Contract wherever the context so requires.
- 1.2. Notwithstanding the sub-division of the documents in to these separate section and volume, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and as a part of the Contract.
- 1.3. Where any portion of the GCC is repugnant to or at variance with any provisions of the SCC, the provisions of the SCC shall be deemed to over-ride the provisions of the GCC.
- 1.4. Where it is mentioned in the Specification, that the Contractor shall perform certain work or provide certain facilities, it is understood that the Contractor shall do so at his own cost.
- 1.5. The materials and workmanship shall satisfy the relevant standards as stipulated under the Contract Agreement, the specification conditioned herein and codes referred to. Where the specifications stipulate requirement in addition to those contained in the Standard codes and specifications, these additional requirements shall also be satisfied by the Contractor.

2. The Site

2.1 General Site Information

The Contractor shall visit the site and satisfy themselves on the actual site conditions, meteorological and other data, before tendering. Whatever information and other relevant data given in the tender document are only intended as a general guidance for the Contractor and no warranty is given for the correctness of the same.

2.2 Condition of Site

The Contractor, before carrying out any work, shall inspect the Site in conjunction with the EIC and / or his representative to establish its general condition which shall be agreed and recorded in writing, and where, in the opinion of the EIC and / or his representative it is deemed necessary, by means of photography.

The boundary of the land earmarked for the execution of the Works shall be defined by the Engineer's Representative and the Contractor shall provide, erect and maintain from commencement to final completion of all work and all reinstatement substantial galvanized pipes or similar approved markers indicating the boundary of the working area at regular intervals as the Engineer's Representative may require. In the event of any such boundary marker / post being disturbed or displaced as a result of the Contractor's operations or theft, the Contractor shall forthwith at his own expense replace the same and maintain the boundary properly.

3. Order of Works

The order in which the works are to be carried out by the Contractor shall be to the approval of EIC and / or his representative and shall be such as to suit the detailed method of construction, adopted by the Contractor as well as the Work Plan / Overall Schedule approved by the Employer. The works shall be carried out in such a manner so as to enable the other Contractors to work concurrently so that the entire project may be brought into use immediately after the completion of works.

4. General Conditions of Construction and Erection Work

- 4.1 The work shall be permitted on the site round the clock.
- 4.2 The Contractor must arrange for the placement of workers in such a way that the delayed completion of the works of any part thereof for any reason whatsoever will not affect their proper employment. The Employer will not entertain any claim for over time / idle time payment etc. whatsoever.
- 4.3 The Contractor shall submit to Employer / EIC reports at regular intervals regarding the state and progress of work. The details and proforma of the report will be mutually agreed after the award of Contract.

5. Surveys and Levels

5.1 Before the works of any part thereof begin, the Contractor shall survey and take levels of the site of the works. Such particulars shall be recorded and signed by the Contractor.

6. Setting out the Works

- 6.1 The Contractor shall provide necessary equipment, labour and other facilities for proper checking of equipment and inspection of the points during the survey and at no cost to the Employer.
- 6.2 The Contractor shall give Employer not less than 24 hours' notice in writing of his intention to inspect for any part of the works so that arrangements may be made for checking the work.
- 6.3 The Contractor shall at his own expense provide all assistance which Employer or his representative may require for checking and inspection.

7. Conditions for work

- 7.1 No shifting charges will be paid to the Contractor for shifting the equipment and its accessories from one place to another.
- 7.2 The decision of EIC and / or his representative to accept the work done with or without the LD shall be final and binding.
- 7.3 No idle time charges will be paid to the Contractor on any account. Local issues / hindrances, if any, would be addressed by the Contractor. The Employer / EIC would facilitate with Local / Government Agencies.
- 7.4 The Employer / EIC and / or his representative will inspect, co-ordinate, measure and certify the work. The Employer / EIC and / or his representative has the right to inspect at any time during the contract period for which contractor's authorized representative shall be available at site during such inspection.
- 7.5 The Contractor may execute the work round the clock and on all days including Sundays and Public Holidays except National Holidays subject to such restriction as may be imposed by State Government / local body or EIC and / or his representative.
- If the Contractor's personnel or any outside labour employed to work during execution of Contract, breaks or damages / destroys any asset during the period of agreement, the same shall be made good by the Contractor at his own expenses or in default, the Employer may cause the same to be made good by other sources and deduct the expenses from any sums that may be then or at any time thereafter may become due to the Contractor.

- 7.7 The rate quoted shall include all taxes, duties and any other levies. No additional payment on any such account shall be payable by the Employer. However, GST which will be quoted separately by the Contractor will be reimbursed.
- 7.8 The right to award / splits up work or to reject the offer without assigning any reason is reserved with the Authority.
- 7.9 If the work is stopped continuously for more than 2 days due to law and order, the Contractor has to report to EIC and / or his representative the same and take actions mutually in accordance with prevailing local laws for removal of such problem and proceeding further with the work to mutual benefit.
- Any charge incurred for adopting environmental safe guards, minimizing detrimental impacts, enhancing the beneficial aspects of the project and for effective management of the environmental resources affected by the project shall be met by the Contractor. No additional charges on any account shall be payable by IWAI.

8. Taxes, duties and levies etc.

The prices shall include all the taxes, levies, cess, octroi, royalty, terminal tax, excise, or any other local, State or Central taxes as applicable/ charged by Centre or State Government or Local authorities on all materials that the Contractor has to purchase for the performance of the contract and services, shall be payable by the Contractor and the Authority will not entertain any claim for compensation whatsoever in this regard. GST will be shown separately in the BoQ and the same will be considered and paid as per the existing rules.

9. Tests

- 9.1. The Contractor shall produce samples of all the materials well in advance so that there is sufficient time for testing of the materials and clearance of the same before incorporation in the work.
- 9.2. All the materials to be used in and on every part of the works shall be subjected, from time to time, to such tests as the Engineer-in-Charge may direct. Such tests shall be performed at the expenses of the Contractor. The samples for tests shall be in all cases selected by the Engineer-in-Charge and supplied by the Contractor as part of the contract. If at any time, any material so tested, fails to meet the acceptance criteria, the same shall be removed from the site of works and other materials substituted therefor, but in the absence of any specified test/acceptance criteria, the decision of the Engineer-in-Charge shall be final and binding as to whether the said material or materials shall be used on the works, or removed forthwith and other suitable, approved material substituted.
- 9.3. The Contractor shall produce on demand from the Engineer-in-Charge, the manufacturer's test certificates certifying that the materials conform to the technical specifications. However, this clause will not apply to routine testing of materials at the site laboratory of the Contractor.
- 9.4. The Contractor has to establish, at his own cost, a testing laboratory/field laboratory to conduct regular and daily routine tests on construction materials, concrete/mortar mixes and any other test/tests stipulated in the particular specifications of the items to be executed in the contract.
- 9.5. The Contractor shall permit the Engineer-in-Charge or his authorised representative to be present during any or all the tests. After informing the Engineer-in-Charge that the total work has been completed, the Contractor shall make, under the direction and in the presence of Engineer-in-

Charge, such tests and inspections as have been specified or as the Engineer-in-Charge shall consider necessary to determine whether or not the full intent of requirements of the plans and specifications have been fulfilled. In case the work does not meet the full intent of the specifications, it shall be rectified by the Contractor at no extra cost and the Contractor shall bear all the expenses for any further tests considered necessary.

- 9.6. All tools, instruments, plants and labour/operating personnel for the tests shall be provided by the Contractor at his own cost.
- 9.7. For any tests as directed by the Engineer-in-Charge, that have to be carried out at an outside laboratory, the cost of such tests, materials transport, etc., shall be borne by the Contractor.

10. Delivery Documents

The delivery documents shall include:

- a) The Contractor's invoice showing purchase order no., description, and total amount;
- b) Delivery note/packing list/transport receipt;
- c) Contractor's/Manufacturer's guarantee certificate;
- d) Inspection/Test certificates showing details where Inspection/Test has been carried out and the Employer's inspection report of contractor's work;
- e) Certificate of origin;
- f) Insurance policy as specified in Section VII (GCC);
- g) Excise gate pass/octroi receipts, wherever applicable, duly sealed indicating payments made; and
- h) Any other document evidencing payment of statutory levies.
- i) Certificate/ License as required from various Government authorities.

Note: The nomenclature used for the item description in the invoice/s, packing list/s and delivery note/s etc. should be identical. The dispatch particulars including name of transporter, LR no. and date should also be mentioned in the invoice/s.

11. Resolution of Disputes

Subject to the provisions of the relevant clause in General Conditions of Contract, any dispute or differences that could not be resolved shall be settled in a court of law having jurisdiction in Noida, after duly complying all legal procedures applicable.

12. Sufficiency of Tender

The intending Contractors shall be deemed to have studied the Tender papers, studied the site conditions, availability of labour, transportation problems, unloading procedures, if any, and the locality of the work, facilities available and has taken into account all aspects affecting the work before submitting the Tender.

13. Programme of Design, Supply, Construction and Commissioning

The Contractor shall submit to the Employer along with the bid for their approval a comprehensive programme in the form of PERT network/Bar chart or any other form as may be required by the Employer showing the sequence of order in which the Contractor proposes to carry out the works

including the design, vetting, manufacture, delivery to site and commissioning thereof. After submission to and approval by the Employer of such program, the Contractor shall adhere to the sequence of order and method stated therein. The approval of such program shall not relieve the Contractor of any of his duties or responsibilities under the Contract. The programme approved shall form the basis of evaluating the pace of all works to be performed by the Contractor. The Contractor shall update and submit the PERT network every week on acceptance of bid, and shall inform the Employer the progress on all the activities falling on schedule for the next reporting date.

14. Preparation of Drawings for Approval

Immediately after receipt of the LOA, the Contractor shall submit to Employer for approval:

- a) Programme schedule
- b) IR Class approved design, GA drawings
- c) During the progress of works and within such reasonable time, such drawings of the general arrangement and details of the works as the Employer may require.
 - The specifications/conditions concerning the submission of drawings by the Contractor are detailed as under:
- a) Within 15 days from the date of issue of letter of award, Contractor shall furnish a list of all necessary drawings as briefly described below which the Contractor shall submit for approval, identifying each drawing by a serial number, descriptive title and expected date of submission.
- b) The Contractor shall get the design approved by the Employer within 25 days from the date of issue of letter of award. The vetted drawings shall be submitted in triplicate (3 hard copies in A0 size and 3 soft copies in AUTOCAD format)
- c) and to the Employer for documentary evidence. All cost in connection with this shall be borne by the Contractor. No extension of time in this account will be granted to the Contractor.
- d) All drawings shall show the following particulars in the lower right hand corner in addition to Contractor's name:
 - i. Name of the client ii. Project title iii. Title of drawing iv. Scale v. Date of drawing vi. Drawing number vii. Space for client's drawing number.
- d) In addition to the information provided on drawings, each drawing shall carry a revision number, date of revision and brief description of revision carried out. Whenever any revision is carried out, revision number must be up-dated accordingly.
- e) All dimensions on drawings shall be in metric units.
- f) Drawings (three sets) submitted by the Contractor for approval will be checked by the Engineer and comments, if any, on the same will be conveyed to the Contractor along with one set of drawing duly marked. It is the responsibility of the Contractor to incorporate correctly all the comments conveyed by the Engineer on the Contractor's drawings. The drawings which are approved with comments are to be re-submitted with corrections for the purpose of records. Such drawings will not be checked/reviewed by the Engineer to verify whether all the comments have been incorporated by the Contractor. If the Contractor is unable to incorporate any comments in

the revised drawings, Contractor shall clearly state in his forwarding letter such non-compliance along with valid reasons.

- g) All these drawings shall further be considered as a part of the specifications.
 - However, the examination of the drawings by the Engineer shall not relieve the Contractor of his responsibility for engineering design, workmanship, quality of materials, warranty obligations and satisfactory performance as covered under the Contract.
- h) If at any time before completion of the work, changes are made necessitating revision of approved drawings, the Contractor shall make such revisions and proceed in the same routine as for the original approval.
- i) The Contractor shall furnish 3 sets of operation and maintenance manuals together with 3 sets of as-built drawings and 1 soft copy, in sufficient detail to enable the Employer for future repairs and maintenance. Unless otherwise agreed, the works shall not be considered to be completed for the purposes of taking over until such manuals and drawings have been supplied to the client.

15. Statutory Approvals

- a) The Contractor shall obtain all necessary statutory approvals/prior approvals of the authorities as may be required and the incidental expenses for obtaining such approvals shall be included in the Contract price.
- b) All the necessary details, drawings, submission of application and pro forma shall be furnished by the Contractor to the Engineer for verification/signature.
- c) The necessary application duly filled-in, together with the prescribed fees shall be submitted to the appropriate authorities by the Contractor on behalf of the Engineer. All cost in this regard shall be included in the Contract price.
- d) Wherever necessary or required, the Contractor shall furnish the test and/or inspection certificates, etc. from the appropriate authorities as per statutory regulations and the cost for obtaining these certificates shall be included in the Contract price.
- e) The Contractor shall obtain all approvals and certifications from all relevant authorities.

16. Contractor's Team

- a) The Contractor shall employ one or more competent representatives, whose names shall have previously been communicated in writing to the Employer, to supervise the works at the site. At least one of the said representatives shall be present at the site during all times, and any orders or instructions which the Employer may give to the said representative shall be deemed to have given to the Contractor. The said representative shall have full technical capabilities and complete administrative and financial powers to expeditiously and efficiently execute the work under the Contract.
- b) The Contractor shall execute the works with due care and diligence within the time specified for completion and shall employ their team comprising qualified and experienced engineers together with adequate skilled, semi-skilled and unskilled workmen at the site for carrying out the works. The Contractor shall ensure adequate work force to keep the required pace at all times as per the schedule of completion.

- c) The Contractor shall furnish the details of qualification and experience of their senior supervisors, engineers assigned to the work site, including their experience in supervising erection and commissioning of similar projects.
- d) None of the Contractor's supervisors, engineers, or labourers may be withdrawn from the work without notice to the Employer and further, no such withdrawals shall be made if in the opinion of the Employer it will adversely affect the required pace of progress and/or the successful completion of the work.
- e) The Employer shall be at liberty to object to any representative or person including skilled, semiskilled or unskilled worker, employed by the Contractor in the execution of the works, or otherwise, who shall, in the opinion of the Employer, misconduct himself or be incompetent, or negligent or unsuitable, and the Contractor shall remove the person so objected to, upon receipt of notice in writing from the Employer and shall provide in that place a competent representative at the Contractor's own expense within a reasonable time.
- f) In the execution of the works, no person other than the Contractor, sub-Contractor and their employees shall be allowed at the site except by written permission of the Employer.

17. Employer's Instructions

The Employer may in their absolute discretion, issue from time to time instructions, directions and clarifications, which are collectively referred to as Employer's instructions in regard to:

- i) Any additional drawing and clarifications to exhibit or illustrate details.
- ii) Variations or modifications of the design, quality or quantity of work or additions or omissions or substitution of any work.
- iii) Any discrepancy in the drawings or specifications.
- iv) Removal from the site of any material brought there by the Contractor, which are unacceptable to the Employer and substitution of any other material thereof.
- v) Removal and/or re-execution of any work erected by the Contractor which are unacceptable to the client.
- vi) Opening up for inspection of any work covered up.
- vii) Amending and making good of any defects.

18. Rights of the Employer

- a) The Employer shall have the right to direct the manner in which all works under this Contract shall be conducted, in so far as it may be necessary to ensure safe and proper progress and specified quality of the works.
- b) Whenever in the opinion of the Employer the Contractor has made deviation from the schedule of completion, or when circumstances or requirement force such a deviation from the said schedule, the client, in order to ensure compliance with the schedule, shall direct the order, pace and method of conducting the work, which shall be adhered to by the Contractor.
- c) If in the judgment of the Employer it becomes necessary at any time to accelerate the overall pace of the work, the Contractor, when directed by the client, shall cease work at any particular point

and transfer Contractor's men to such other point or points and execute such works, as may be directed by the client.

19. Contractor's Obligations

- a) The Contractor shall proceed with the work to be performed under this Contract with the best of quality and in a workmanlike manner by engaging qualified and efficient workers and finish the work within the scheduled time and in strict conformance with the drawings and specifications and any changes/modifications thereof made by the Employer.
- b) The Employer shall make any variation of the form, quality or quantity of the works or any part thereof which, in their opinion is desirable and they shall have power to order the Contractor to do and the Contractor shall do any of the following:
- (i) Increase or decrease the quantity of any work included in the Contract.
- (ii) Omit any such work,
- (iii) Change the character or quality or kind of any such work,
- (iv) Change the levels, lines, position and dimensions of any part of the works, and
- (v) Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way vitiate or invalidate the Contract, but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the Contract price. No such variations shall be made by the Contractor without an order in writing by the Employer no such variation shall invalidate the Contractor's responsibility.
- All extra or additional work done or work omitted by order of the Employer shall be valued at the rates and prices set out in the Contract if in the opinion of the Employer, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the extra or additional work, then suitable rates or prices shall be agreed upon between the Employer and the Contractor. In the event of disagreement, the Employer shall fix such rates or prices as shall, in his opinion, be reasonable and proper. The Contractor shall send to the Employer once in every month, a statement giving particulars, as full and detailed as possible, of all claims for any additional payment to which the Contractor may consider himself entitled because of extra or additional work ordered by the Employer which he has executed during the preceding month.
- d) The work shall be carried out as approved by the Employer from time to time, keeping in view the overall schedule of completion of the project.
- e) The Employer may also direct the Contractor to operate extra shifts to ensure completion of Contract as per schedule.
- f) The Contractor shall arrange for insurance of all men, machinery and materials brought by him to the site for the execution of the Contract, till handing over of the complete job.
- g) The Employer shall not be liable for or in respect of any damages or compensation payable under the workmen's compensation Act (VIII) 1953, Employees Provident Fund Act or any other law in respect or in consequence of any accident or injury to any workman 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 against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

- h) The Contractor shall ensure against such liability with an insurer approved by the client, and shall continue such insurance during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the Employer such policy of insurance and the receipt for payment of the current premium.
- i) The Contractor shall effectively protect the Goods from the effects of weather and from damages or defacement and shall cover appropriately, wherever required, all the works carried out by him.
- j) Adequate lighting, guarding and watching at and near all the storage, handling, fabrication, preassembly sites for properly carrying out the work and for safety and security shall be provided by the Contractor at Contractor's cost. The Contractor should adequately light the work area during night time also.
- k) The Contractor shall take full responsibility for the care of the works or any section or portions thereof until taking over by the Employer and in case any damage or loss shall happen to any portion of the works not taken over as aforesaid, from any cause whatsoever, the same shall be made good by and at the sole cost of the Contractor and to the satisfaction of the Employer. The Contractor shall also be liable for any loss of or damage to the works including works carried out by others, caused by the Contractor or his sub-Contractor in the course of any operations carried out by them for the purpose of completing any outstanding work or complying with his obligations.

20. Unloading, Loading and Inspection

- a) The Contractor shall be responsible for the reception and unloading of all the materials/equipment from the carriers, received at site. The Contractor shall ensure that adequate and all measures necessary to avoid any damage whatsoever to the equipment at the time of unloading are taken. Liaison with all state, local and police authorities shall be handled by the Contractor. The Contractor shall comply with local conditions regarding unloading work.
- b) The Contractor shall safely load/ shift the unloaded materials/ equipment to the storage area.
- c) The Employer shall have full power and authority to inspect the items received at site, irrespective of whether the items are inspected/tested at the Contractor's shop floor.
- d) The protection, safety and security of the materials shall be the responsibility of the Contractor, until they are handed over to the Employer after testing and commissioning as per the terms of the Contract.

21. Storage of Equipment

Adequate security measures shall be taken by the Contractor to prevent theft and loss of materials under his custody.

22. Final Taking Over

Before taking over, the Contractor shall have complied with each of the following requirements.

- a) The supplies/works shall have been completed in all respects in accordance with the Contract documents/ Purchase Order.
- b) Any defects/malfunctioning which may have become apparent during inspection have been rectified to the satisfaction of Employer.

- c) Inspection by statutory authorities wherever necessary shall have been arranged and all statutory approvals obtained. The responsibility of obtaining necessary statutory clearances, insurances and licenses rests with the Contractor.
- d) All the approved drawings, as-built drawings, Tool Kit and Operation & Maintenance Manuals (if any) for the Goods shall be submitted in the required number.

A Final taking over Certificate will be issued to the Contractor when the above pre conditions have been satisfied. The date of issue of the Final taking over Certificate shall be deemed to be the date of completion of the commissioning activities.

23. Guarantee/Warrantee

- 23.1. **The** guarantee period shall commence from the date of issue of final taking over certificate of equipment and shall be valid for a period of twelve (12) calendar months.
- 23.2. The Contractor would be required to give performance guarantee for each individual item of equipment supplied, fitted and tested, as is applicable in each case (for due performance, quality of material used, design, fabrication, fitting, etc.).
- 23.3. In respect of equipment/component renewed under the terms of guarantee, the period of guarantee for such items shall be for six months from the date of renewal or till the end of guarantee period, whichever is later.
- 23.4. The guarantee period shall be extended in case of extension of the guarantee run period for reasons attributable to the Contractor and this will be communicated by the Employer to the Contractor in writing. The duration of extension of guarantee period will be mentioned in the above letter.
- 23.5. Should the Contractor fail to rectify any defects which shall have been notified to him in writing during the period of guarantee, it shall be deemed as a breach of Contract and the Employer will be entitled to rectify such defects at the Contractor's cost and same shall be recovered from the available performance bank guarantee.

24. Training of Personnel

The Supervisory and operating personnel of the Employer/ or any agency engaged by Employer shall be provided with adequate training by the Contractor during the construction, testing, start-up and commissioning.

25. Review and Co-Ordination

The Contractor shall depute senior and competent personnel to attend the site coordination meetings that would generally be held at the site every week. The Contractor shall take necessary action to implement the decisions arrived at such meetings and shall also update the project schedule.

26. Extension of Time for Completion

Should the amount of extra or additional work of any kind, or any cause of delay referred to in these conditions, or exceptional adverse climatic conditions, or other special circumstances of any kind whatsoever which may occur, other than through a default of the Contractor, be such as fairly to entitle the Contractor to an extension of time for the completion of the works, the Employer shall determine the amount of such extension and shall notify the Contractor accordingly. Provided that the Employer is not bound to take into account any extra or additional work or other special circumstances unless the Contractor has within ten days after such work has been commenced, or

such circumstances have arisen, or as soon thereafter as is practicable, submitted to the Employer full and detailed particulars of any extension of time to which he may consider himself entitled, in order that such submission may be investigated at the time.

27. Additional Conditions

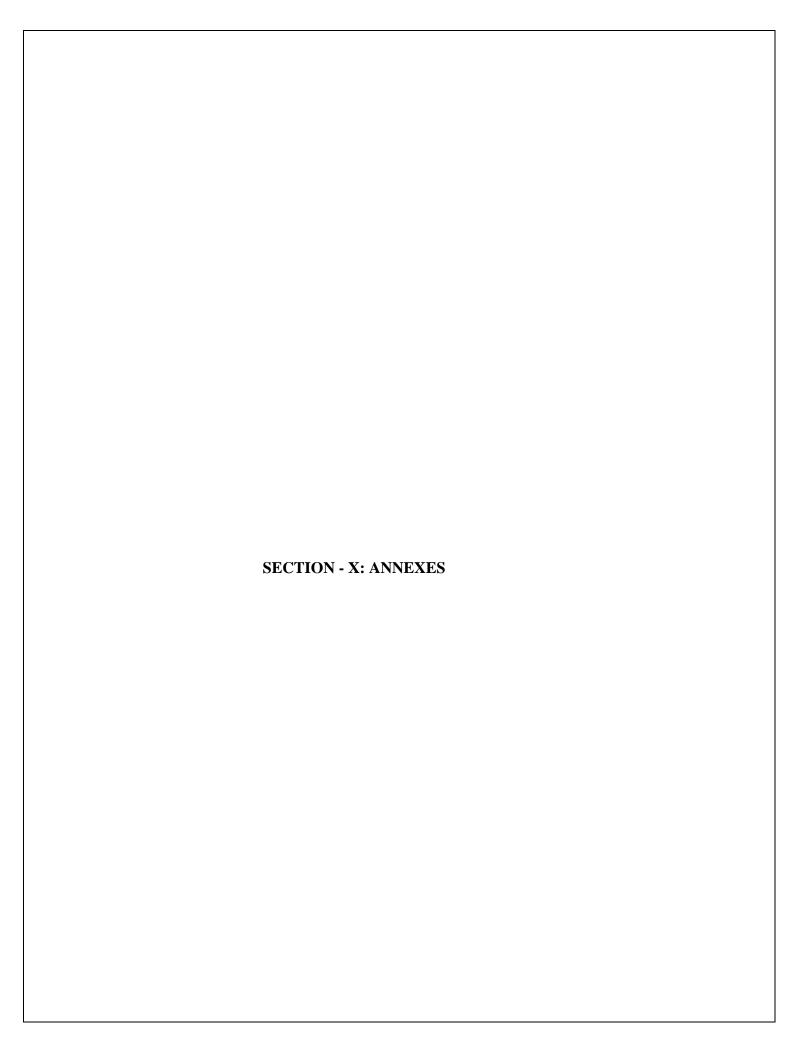
In addition to the above mentioned SCC, the following table shall also form part of SCC which are to be read in conjunction with relevant GCC Clause:

GCC Clause	Heading	Definitions
3.1.2.4 (ii)	Percentage of variation under Engineer's duty and Authority	20 % (twenty percent)
5.4.4 & 5.4.5	Payments to Nominated Subcontractors	The GCC clause 5.4.4 & 5.4.5 shall now be read as: Contractor shall be entirely responsible for all the payments to be made to the nominated subcontractor. Contractor shall hold employer indemnified against
		all claims arising from sub-contracting of works. The Contractor shall produce No Claim Certificate from the sub-contractors at the demand of EIC, before final bill payment.
		Contractor shall not be absolved of his responsibilities and duties of the contract by nominating sub-contractors.
8.12	Limit of Liquidated Damages	If the Consultant fails to complete any items of works within the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the Consultant) as may be agreed he shall without prejudice to any other right or remedy of the Authority on account of such default, pay compensation (not by way of penalty) at the rate of 1/2 % (half percent) per week or part thereof on the total value of the contract subject to a maximum of 10% of the total value of the contract. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 18.
10.2 &10.3	Taking over of sections or parts	There shall be no taking over of sections or parts. Only interim completion certificate and final

GCC Clause	Heading	Definitions
		completion certificate shall be given as per the conditions of contract.
15.2 (b)	Minimum Amount of Interim Payment (monthly)	As per Payment Terms
15.13	Advance Payment	No Advance Payment shall be made.
16.2	Provisional Sums	Clause Deleted

<u>Payment Terms – GCC Cluse 15:</u>

Stages	Description of works	Percentage of contract value including GST (Part payment will be made for individual site)
1.	Against Supply of Goods shall be released after 30 days of the successful Delivery of the instruments/Equipment as per Schedule of Requirements. For the equipment supplied at various locations, the supplier will furnish the invoice for supply of goods duly certified by the Officer-in-Charge of IWAI for supply of goods. The respective Officer-in-Charge of the authority or their representative would certify the delivery challan and invoice within 15 days of completion of delivery.	80%
2.	Against installation, training (if specified) and commissioning. For the equipment tested & commissioned at various locations, the supplier will furnish the installation & commissioning report duly certified by the Officer-in-Charge of IWAI for installation & commissioning. The respective Officer-in-Charge of the authority or their representative would certify the installation & commissioning report within 15 days of completion of installation & commissioning.	20%



ANNEX - I INTEGRITY AGREEMENT

(To be executed on non-judicial stamp paper of Rs. 100 and signed by the Bidder and the same is to signed by the Authorized Signatory / Competent Employer on behalf of IWAI)

This Integrity Agreement is made at on thisday of 2019

BETWEEN

Chairperson, Inland Waterways Authority of India represented through (insert name of authorized representative), Inland Waterways Authority of India, A - 13, Sec. – 1, Noida.

IWAI, (Hereinafter referred to as the 'Employer', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

(Name and
Address of the Individual / firm / Company) through
(Hereinafter referred to as the (details of duly authorized signatory) "Bidder/Contractor" and which
expression shall unless repugnant to the meaning or context hereof include its successors and
permitted assigns)

Preamble:

AND WHEREAS the Employer values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal / Owner

- 1) The Employer commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- (a) No employee of the Employer, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- (b) The Employer will, during the Tender process, treat all Bidder(s) with equity and reason. The Employer will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional

- information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
- (c) The Employer shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1. It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the IWAI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge of or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
- a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Employer's employees involved in the tender process or execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the contract.
- b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Employer as part of the business relationship, regarding plans, technical Bids and business details, including information contained or transmitted electronically.
- d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent / parallel tender for the same item.

- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means of a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government / Employer's interests.
- 5. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Employer under the law or the Contract or its established policies and laid down procedures, the Employer shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the bidder/contractor accepts and undertakes to respect and uphold the Employer's absolute right:

- 1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Employer after giving 14 days' notice to the Contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Employer. Such exclusion may be forever or for a limited period as decided by the Employer.
- 2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Employer has disqualified the Bidder(s) from the tender process prior to the award of the contract or terminated/determined the contract or has accrued the right to terminate/determine the contract according to Article 3(1), the Employer apart from exercising any legal rights that may have accrued to the Employer, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3. Criminal Liability: If the Employer obtains knowledge of conduct of a Bidder or Contractor or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Employer has substantive suspicion in this regard, the Employer will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anti-corruption approach or with Central Government or State Government or any other Central / State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Employer.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Employer may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors

- 1) The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its sub-vendors.
- 2) The Employer will enter into Pacts on identical terms as this one with all Bidders and Contractor.
- 3) The Employer will disqualify Bidders / Contractors, who do not submit, the duly signed Integrity Pact between the Employer and the Bidder / Contractor, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires 18 months after the completion of work under the contract.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Employer.

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Employer, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Employer in

accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard to any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Employer)

(For and on behalf of Bidder / Contractor)
WITNESSES:
1
(Signature, name and address)
2
(Signature, name and address)
Place:
Date :

ANNEX - II: FORMAT OF BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

The Chairperson
Inland waterways Authority of India
Ministry of Shipping, Ports and Waterways, Govt. of India
A-13, Sector-1,
Noida (U.P.)
Pin- 201301
In consideration of the
We, (Bank) do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Employer stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Employer by reason of breach by the said Contract or any of the terms or conditions contained in the said time frame or by reason of the Contractor's failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding INR
We, (Bank) undertake to pay the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any court or Tribunal relating thereto, liability under this present being absolute and unequivocal. The payment so made by

3. We, (Bank) further agree that the guarantee herein contained shall remain in full force and effect till completion of project work to the complete satisfaction of the Employer in terms of conditions of contract and Letter of Acceptance and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Agreement have been fulfilled and its claim satisfied or till the scheduled date of completion of Works as per the Agreement. We(Bank) shall consider that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor and accordingly discharge this Guarantee after 90 days beyond the completion period of the said contract unless a demand or claim under this Guarantee is served by the Employer in writing on the bank but before the expiry of the said period in which case it shall be enforceable against the

us under this guarantee shall be valid discharge of our liability for payment there under and the

Contractor shall have no claim against us for making such payment.

To

1.

2.

bank notwithstanding the fact that the same is enforced after the expiry of the said period or after the extended period as the case may be.

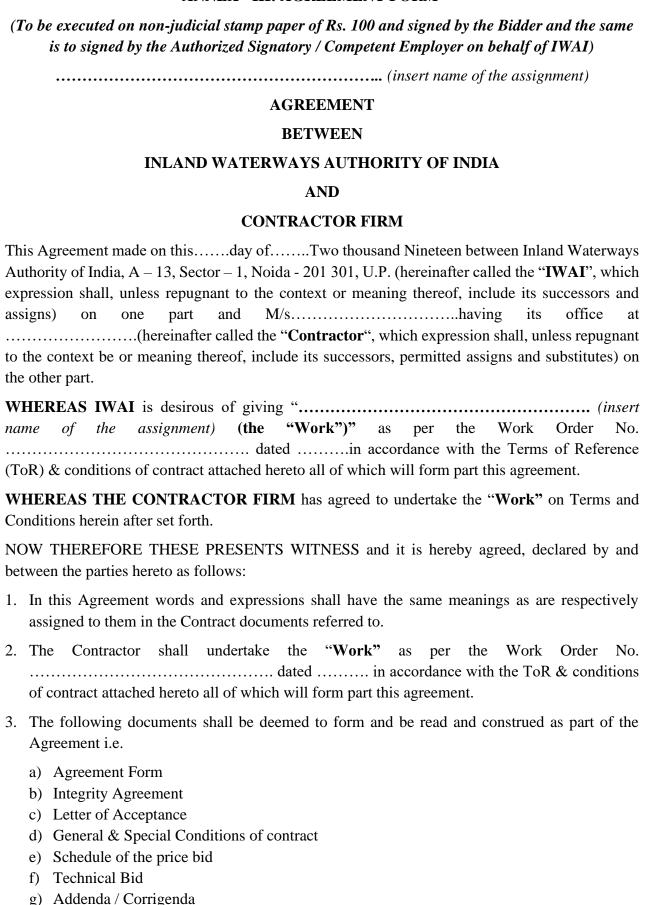
- 4. We (**Bank**) further agree with the Employer that the Employer shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time or performance by the said **Contractor** from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said **Contractor** and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said **Contractor** or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said **Contractor** or by any such matter or thing whatsoever which under the law relating to sureties would, but for the provision, have effect of so relieving us.
- 5. It shall not be necessary for the Employer to proceed against the **Contractor** before proceeding against the Bank and the guarantee herein contained shall be enforceable against the bank notwithstanding any security which the Employer may have obtained or obtain from the **Contractor** at the time when proceedings are taken against the bank hereunder be outstanding or unrealized.
- 7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the **Contractor.**
- 8. We, (**Bank**) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Employer in writing.

for	
	(Indicate the name of bank)
Signat	ure
Name of the Office	r
	(In Block Capitals)
	Designation
Code No	

Dated the of 2019

Name of the bank and Branch (SEAL)

ANNEX - III: AGREEMENT FORM



h) Minutes of Pre-Bid Meeting

i) All	Corres	pondences
---	-------	--------	-----------

The "Contractor" hereby covenants with IWAI to complete and maintain the "Works" in conformity in all respect, with the provisions of the Agreement.

The "IWAI" hereby covenants to pay the Contractor in consideration of such completion of works, the contract price at the time and in the manner prescribed by the Contract.

IN WITNESS whereof the Parties hereto have caused this Agreement to be executed in accordance with the laws of Republic of India on the day, month and year indicated above.

For and on behalf of	For and on behalf of
(Inland Waterways Authority of India)	(Contractor)
Signature	Signature
Signature	Signature
Name & Designation	Name & Designation
Stamp	Stamp
Witness – I	Witness – I
1) Signature	1) Signature
2) Name & Designation	2) Name & Designation
2, Traine & Designation	2) Traine & Designation
Stamp	Stamp
•	•

Witness – II	Witness – II	
1) Signature	1) Signature	
2) Name & Designation	2) Name & Designation	

ANNEX - IV: DETAILS OF BANK ACCOUNT

FOR RELEASE OF PAYMENT THROUGH ELECTRONIC FUND TRANSFER SYSTEM

(To be submitted on the letter head of the Bidder)

NAME OF THE PROJECT:	
crediting our bank account directly	me of the Bidder) hereby request you to give our payments by by E-payment mode as per account details given below. We in case of any change in particulars given below and will not
	/ default due to any technical reasons beyond IWAI's control:
Bank Account Number	:
RTGS/NEFT/IFSC CODE :	
NAME OF THE BANK	:
ADDRESS OF THE BRANCH	:
OF THE BANK	
BRANCH CODE	:
ACCOUNT TYPE	
(SAVING/CURRENT/OTHERS)	:
A BLANK CHEQUE (CANCELL)	ED) IS ENCLOSED HEREWITH.
	ars given above are correct and complete. If the transaction is for reasons of incomplete or incorrect information, I/We would
	Signature of Authorized Signatory
	Name & Designation
Date:	
Place	

	ed beneficiary holds a Bank Account No
	Authorized Signatory
Date:	Authorization
No	
Name:	
Official Seal / Stamp	

ANNEX-VI: LETTER OF ACCEPTANCE OF TENDER DOCUMENT

(To be submitted on the letter head of the Bidder)

To,	Date:
Hydrographic Chief,	
Inland Waterways Authority of India,	
A-13, Sector – 1, Noida - 201 301,	
District: - Gautam Budh Nagar (U.P.)	
Sub: Acceptance of Terms & Conditions of Tender	
Tender Reference No:	
Name of Tender/Work:	(insert name of the assignment)
Dear Sir,	
1. I/ We have downloaded /obtained the Tender doc from the website(s) namely: www.iwai.nic.in (your advertisement, given in the above mentione	OR https://eprocure.gov.in/eprocure/app as per
2. I / We hereby certify that I / we have read the documents from Page No to schedule(s), etc.), which form part of the contract terms/conditions/clauses contained therein.	_ (including all documents like annexure(s),
3. The minutes of the pre-bid meeting (if any) and / time by your department / organization for this w while submitting this acceptance letter.	
$4.I/We\ hereby\ unconditionally\ accept\ the\ Tender\ c\\/minutes\ of\ the\ Pre-Bid\ Meeting\ (if\ any)\ /\ corrig$	
5. In case any provisions of this Tender are found viewithout prejudice to any other right or remedy be the forfeiture of the full Earnest Money Deposit a	e at liberty to reject this Tender / Bid including
	Yours Faithfully
	(Signature of the Bidder, with Official Seal

Page 160 of 168

ANNEX-VII: COMPLIANCE STATEMENT FOR SINGLE FREQUENCY HYDROGRAPHIC ECHO SOUNDER (SCHECDULE 'A')

Sl#	Tender Specifications for Single frequency Hydrographic Echo sounder	Bidder Specifications
1	Suitable for minimum 8 hours continuous operation.	
2	Compatible with Hydrographic Survey Softwares like Hypack Max/PDS or other reputed international brands with continuous recording in the computer.	
3	Operating Frequency : 190-225 KHz (Dual Frequency optional with Operating frequency from 24 KHz to 225 KHz).	
4	Built-in digitizer (Optional).	
5	Depth range : 0.2-60m or higher with selectable intermediate range.	
6	Depth Resolution: 1 cm	
7	Depth accuracy: +/- 0.5% of measured depth	
8	Draft offset: User configurable	
9	Sound Velocity: 1400-1600 meters/second	
10	LCD Display: Back-lighting: Electro-luminescent	
11	RS232/ 422 Output	
12	GPS/ NAV Integration.	
13	NMEA 0183 Input	
14	Geographic position: NMEA-0183 GGA or GLL Format from GPS/DGPS	
15	Data Outputs:	
a.	NMEA DBT	
b.	NMEA DBS	
16	Power Operation: 11- 36V DC, 115/230V	
17	Input Power: 11-30 volts DC (1.5 amps @ 12V, 0.5 amp @ 30V.)	
18	Chart Record (Optional): High-Contrast Thermal Paper	
19	Operation controls for off/standby/on, range selector, Sensitivity, chart speed, fix marks and range. Echogram to indicate transmission mark, zero mark & bed profile.	
	TRANSDUCER	
20	International branded 190 KHz-225 KHz transducer with minimum 30 feet cable length with plug to mate with recorder.	
21	Nominal Impedance: 50 ohms	
22	Beam width: 8-9 degrees @-3dB	
23	Housing Material: Brass/ SS	
24	Piezo Material: Barium Titanate or better	

25	Anodized Aluminum Pipe in four pieces to be joined by threads with fitting accessories (complete) for outboard vessel/Boat.	
26	User manual. AC and DC power cables, Interfacing Cables with Computers & GPS, Spare fuses, Tool Kit.	

Note 1: Bidder has to filled the values instead of Yes or No.

ANNEX-VIII: COMPLIANCE STATEMENT for HEADING DGPS CUM BEACON RECEIVER FOR SURVEY AND NAVIGATION (SCHECDULE 'B')

Sl#	Tender Specifications for HEADING DGPS CUM BEACON RECEIVER FOR SURVEY AND NAVIGATION		Bidder Specifications
	Parameters	Specification	
Conf	iguration		
1	Туре	Modular, dual antenna capable DGPS Rover for Heading	
2	Rover position update rate	up to 20Hz	
3	Constellations	GNSS (GPS and GLONASS standard). Galileo, BeiDou	
Gene	eral		
4	Display	OLED display	
5	Antenna	GA830, Triple Frequency GNSS (GPS, Glonass, Galileo, BeiDou), MSS (RTX, OmniSTAR), MSK Beacon	
6	Pole Drop	1 m pole drop onto a hard surface	
7	Shock & Vibration	MIL-STD 810F	
Meas	surements		
8	GNSS tracking channels	450 or more GPS GLONASS Galileo BeiDou	
9	SBAS Positioning		
a	Horizontal accuracy	± 0.50m	
b	Vertical accuracy	± 0.85m	
10	RTK Positioning		
a	Horizontal accuracy	8 mm + 1 ppm RMS	
b	Vertical accuracy	15 mm + 1 ppm RMS	
11	Precise Heading		
a	Heading accuracy baseline	0.09° RMS	
b	Heading accuracy baseline	0.05 ° RMS	
c	Pitch or Role	Typically twice the baseline accuracy	
12	Post-processing accuracy		
a	Static	3 mm+0.5 ppm HRMS /5 mm+0.5 ppm VRMS	
b	High precision static	3 mm+0.1ppm HRMS/3.5 mm+0.4 ppm VRMS	
13	Power		
a	Internal	Removable internal battery 7.4V 3.7 Ah Li-Ion battery	

b	External	9-36 V DC external power input. Overvoltage protection	
14	Communications Lemo, USB, Ethernet, WiFi, Bluetooth		
a	Lemo (Serial 1) - Port A	RS232, external power input	
b	Serial 2 - Port B	9 pin Male. RS232. Switchable to RS422	
c	Serial 3 - Port F	9 pin Male. RS232, 1PPS, NMEA2000 (CAN)	
d	USB	1 mini USB OTG	
e	Ethernet	RJ45 connector. DHCP Server, Static IP, Server mode	
f	f Wi-Fi 802.11 b/g/n. SMA connector for WiFi/Bluetooth external antenna		
QQ	Bluetooth wireless technology	Bluetooth v4.0+EDR/LE, Bluetooth v2.1+EDR SMA connector for WiFi/Bluetooth external antenna	
15	Network Protocols	HTTP, NTP Server, TCP/IP or UDP, NTRIP, RTK	
		Networks, Network link to Google Earth	
16	Supported Data Formats		
a	Data Outputs	NMEA, 1PPS Time Tags, ATOM	
17	Internal 2-Watt UHF Radio (450 MHz)	12.5 kHz or 25 kHz spacing available	
18.a	L. L. Mayr. B	Frequency range 283.5–325.0 kHz	
b	Internal MSK Beacon receiver	Channel spacing 500 Hz	
С	10001401	MSK bit rate 50, 100, and 200 bps	
d		Demodulation minimum shift key (MSK)	
19	Memory		
a	Internal memory	8 Gb	
b	External	Expandable through external USB	
20	Accessories		
a	Cables	All necessary power cable, adapter, data cables/interface cables required for interfacing should be supply	
b	Antenna cables	30 Meter Antenna cable should be supply with each Antenna	

Note 1: Bidder has to filled the values instead of Yes or No.

ANNEX-IX: COMPLIANCE STATEMENT for DGPS RECEIVER (SCHECDULE 'C')

Sl#	Tender Specifications for DGPS RECEIVER	Bidder Specifications
1	Type: Receiver with SBAS and Beacon	
2	Channels: 225 channels or more	
a	220-channel L1 C/A code (GPS, GLONASS, Galileo, Beidou, SBAS) Single frequency or better	
b	2-Channel MSK Beacon or better	
c	2-Channel SBAS (WAAS, EGNOS & GAGAN) or better	
3	Constellation tracking: GPS, GLONASS, Galileo, Beidou, SBAS and More	
4	ANTENNA OPTIONS: GNSS (GPS, Glonass, Galileo, Beidou), MSK Beacon, SBAS	
5	Position update rate: 10 Hz	
6	Position format: Geodetic (WGS84)	
7	Differential source: SBAS (WAAS, EGNOS & GAGAN) and DGNSS Beacon	
8	Horizontal accuracy: ± 0.50m or better	
9	Vertical accuracy: ± 1.0 m or better	
10	1PPS output: Yes	
11	Keyboard and Display: VFD display 16 characters by 2 rows, On/Off key for one-button start up or better	
12	Operating temperature: -40 °C to $+65$ °C (-40 °F to $+149$ °F)	
13	Storage temperature: -40 °C to +80 °C (-40 °F to +176 °F)	
14	Waterproof. Dustproof.	
15	SHOCK AND VIBRATION as per drop test internationally acceptable.	
16	POWER: 12-28V DC, Internal Lithium-ion battery (Optional)	
17	Compatible with Hypack software/ Teledyne PDS.	
18	Communication: Bluetooth, Wi FI, USB / Serial, Ethernet, RS 232 to connect to Laptop / PC for data communication	
19	Data Output: NMEA 0183	
20	Accessories : Antenna (s), necessary cable for antenna (15m), serial/Ethernet and PPS cables to interface with Echosounder and PC.	
	-4- 1. D'. J.J 14- E'll- J. 1 14 JE X/ N.	ı

Note 1: Bidder has to filled the values instead of Yes or No.

ANNEX-X: COMPLIANCE STATEMENT for Handheld GPS (SCHECDULE 'D')

Sl#	Tender Specifications for Handheld GPS	Bidder Specifications
1	Mobile Mapper Hand held with smart phone.	
2	GNSS Receiver, Internal antenna: 72 channels, SBAS WAAS/EGNOS/MSAS/GAGAN/QZSS	
3	Tri constellation system: GPS/GAL or GPS/ GLO/GAL or GPS/Beidou/GAL	
4	External antenna connector	
5	Accuracy: - <less 2="" m="" sbas.<="" td="" than="" typical="" with=""><td></td></less>	
6	COMMUNICATIONS: - Cellular, Wi fi, Bluetooth	
7	Memory: 4 GB SDRAM	
8	Storage: - 64 GB and with Micro SD Card 128 GB.	
9	Power Characteristics: - 8000mAH	
10	Battery Life: - 15 hrs	
11	Removable battery	
12	MULTIMEDIA & SENSORS	
13	Rear camera13Mpixels with auto-focus and LED flash	
14	Front camera 5Mpixels with fixedfocus	
15	Digital Compass	
16	Gyrometer	
17	Accelerometer	
18	Barometer	
19	Speaker	
20	Microphone	
21	Light sensor	
	STANDARD ACCESSORIES	
22	Screen protector	
23	A/C charger	
24	USB cable	
	OPTIONAL ACCESSORIES	
25	External magnetic GPS	
26	Pole bracket	
	oto 1. Ridder has to filled the values instead of Ves or No	

Note 1: Bidder has to filled the values instead of Yes or No.

ANNEX-XI: UNDERTAKING FOR INPUT TAX CREDIT IN GST CLAUSE

FORM -----UNDER TAKING FOR INPUT TAX CREDIT IN GST BY THE BIDDERS

(To be submitted on the letter head of the Bidder)

To,	Date:
10,	Director,
	INLAND WATERWAYS AUTHORITY OF INDIA,
	A-13, Sector – 1, Noida - 201 301,
	District- Gautam Buddha Nagar (U.P.)
Kind	Attention: Director
Sub:	Undertaking from the Bidder
Tende	er Reference No:
Dear	Sir,
	is with reference to the above mentioned Tender document. We hereby make the wing declarations:
	ontractor shall undertake to pass on the input tax credit in GST and shall compensate mployer for any loss suffered on this account by Employee (if any).
We,	(Name of contractor)) hereby certify that the
	NPUT TAX Credit in GST as per Agreement shall pass on the input tax credit in
	and shall compensate the Employer for any loss suffered on this account by oyee (if any).
Signa	ature with official Seal
Name	
Desig	gnation of bidder/authorized representative
Addre	255